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VOLUME I.—APRIL 1874-5.

Missouri Clinical Record,

A MONTHLY JOURNAL OF

MEDICINE AND SURGERY.

BOSTON MEDICAL
MAY 31 1888
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ST. LOUIS:
H. F. ZIDER, PUBLISHER, 511 PINE STREET.
1875.

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Original Lectures.

CLINICAL LECTURE

ON A CASE OF PROGRESSIVE MUSCULAR ATROPHY.

BY P. GERVAIS ROBINSON, M. D.

Prof. of Clinical Medicine and Principles of Diagnosis, Mo. Med. College.

BOSTON MEDICAL LIBRARY ASS'N MAY 31 1888

GENTLEMEN:—I have been so fortunate as to be able to bring before you this morning a very interesting and instructive case of that very strange and peculiar form of disease which goes by the name of "Progressive Muscular Atrophy." It is as you will see, a paralytic affection dependent upon a gradual and slowly extending destruction of the muscular tissue, going on from bad to worse, until more or less all the muscles of the body under the control of the will are involved in the disease—it is this tendency to grow steadily and surely worse which gives the prefix "progressive"—The loss of muscular power is dependent upon and advances *pari passu* with the atrophy of the muscular tissue, and as a general rule this evident atrophy and emaciation, when considered in connection with the paralysis, enables us readily to recognize the disease. I say as a general rule, because there are exceptions as you will see, and the knowledge of such occasional exceptions will be a guard to you against error where the atrophy of the muscular tissue is not self-evident.

With this introduction, let us proceed to the antecedent history of the case and an account of its progress up to date.

P. Finley, an Irishman by birth, aged 35 years, a laborer, father and mother both died when he was quite small; states that his mother died of pleurisy. Has a brother and two sisters, living, but has not heard from them for about five years. Patient was occupied chiefly as a miner for 15 or 18 years, in the *lead* mines of Iowa, Wisconsin and Illinois. Worked principally with the pick and shovel. Never had any sickness of importance while a miner. Left his occupation and went to the Indian nation, stopping most of his time at Fort Gibson. He then removed to Neosho, Mo. and while there had intermittent fever, lasting about two weeks; he then went to Springfield and worked on the rail road, and while there had a relapse of his chills and fever, from which he was again relieved in about one month. He then went south and remained about two months, during which time he had several attacks of intermitent fever; from the south he returned to St. Louis. He says, that while working upon the rail road, now about 18 months ago, he noticed that the thumb and first finger of the left hand were getting weaker and he soon observed that the ball of his thumb was gradually becoming smaller; then there followed weakness in the extensor muscles of the same hand and subsequently and by degrees his whole arm became smaller with proportionate loss of power, and that it grew steadily worse from day to day. He observed that there was constant twitching and jerking of the muscles in the affected part from the beginning of the trouble. Never suffered from any pain in the affected limbs. After the disease had extended some distance up the left arm the corresponding limb of the opposite side became in like manner affected, the malady beginning also in the thumb and first finger of the hand, and so on, traveling up the limb. Never had syphilis or gonorrhœa; never had colics of any kind.

PRESENT CONDITION.

Now let us examine and see for ourselves what is the present condition of the patient: His general health seems to be good, for his appetite is fair; he sleeps well, and his bowels and kidneys perform their several functions normally. On inspection we find that the muscles of the left hand are completely atrophied, so that there is little left but skin and bone. Observe the peculiar aspect of this organ, very like a bird's claw, owing to the extension of the first phalanges of the fingers, while the last two are in a fixed state of semiflexion; this from its similitude has been called by Duchenne, the *main en griffe*, and is characteristic of the disease at a certain stage. Now compare with this the other hand and we find that, though the disease has made considerable progress, there is not near so much emaciation, and the fingers are not yet fixed, indeed the patient can flex and extend them a little. Passing up the limb, we see a great degree of atrophy upon the left side in more or less all the muscles, and you observe the flexion of the forearm can scarcely be accomplished by the patient. Nor can he raise his left arm even to the horizontal, and in correspondence with this loss of power we find on examination that the deltoid and serratus magnus are much atrophied—and here we observe an almost constant twitching in certain portions of these large masses of muscular tissue, fibrillary contraction, it is sometimes called, indicating that the contractions take place in a limited number of the fibres in contradistinction to a contraction of the totality of the fibres simultaneously, that is of the whole muscle. Upon the right side there is much less atrophy to be seen and so the patient can put his hand to the side of his face, though with great difficuity—the same twitching is here observed in certain of the muscles. The pectorals are involved on both sides while the trapezii are only so in their inferior portions. The patient apparently walks very well, but complains of a growing weakness in his legs, and on examination while no emaciation can be discovered yet standing at some distance from him, while the legs are uncovered we can plainly see the same peculiar quivering which we have already noticed in certain of

the muscles of the upper limbs not yet in a state of extreme atrophy.

He complains of some embarrassment in deglutition and we perceive that his speech is not clear, so that we may presume that the muscles concerned in the performance of these functions are already involved. Sensibility as tested by pinching the skin, etc., is everywhere unimpaired. The application of the faradic current produces contractions more or less decided, according to the amount of atrophy which the muscles have undergone.

This patient presents us then with a typical example of this formidable disease. It has in his case observed the general rule as to the portion of the body first attacked, namely, the muscles of the thumb and hand. I say general rule, because it is not without exception, and bearing this in mind you will not be led into the error of excluding the possibility of the existence of Progressive Muscular Atrophy should you meet with one of those exceptional cases in which the disease makes its first attack in other portions of the body. Thus undoubted cases have been reported where the atrophy commenced in the muscles about the shoulder or trunk and traveled downward to the extremities of the limbs, so reversing the order of its progress.

We have next an important sign in the diagnosis of this malady, observed in a very marked degree in our patient, viz., the twitching, quivering or fibrillary contractions. This, however, according to some of the most reliable observers is not uniformly present. Dr. Duchenne, for example, found them absent in the fifth of all his cases.

Out of fifteen cases reported by P. Victor Bazin, they were altogether absent in two instances, while the patients were under his observation as well as previous to that time, according to their own account. Bazin is inclined to think that the presence or absence of this sign is dependent upon the atrophy or not of the anterior roots of the spinal nerves, in as much as post mortem examinations have shown a coincidence of such atrophy with fibrillary contractions during the life of the patient, and the absence of such change in the size and structure of the nerves when that sign had been wanting.

It is more than likely, however, that this want of correspondence in the cases reported, so far as regards this one sign, is dependent rather upon faulty observation or the unreliability of the patient himself. These contractions, we believe, as a rule, are not *felt* by the patient. They produce no painful or other sensation. And you heard our patient declare that he did not feel in the least the movements in the calves of his legs, which were so pronounced as to be plainly visible at a distance of ten feet from him.

It would appear that this phenomenon occurs only in the early stages of the disease, while the muscle is yet in a minor degree of atrophy and still retains its contractibility. So it may escape the notice of the patient from the absence of abnormal sensation, until, when he has fallen into the hands of the physician the affection has passed beyond that stage when the phenomenon occurs.

The sign itself would seem to indicate a want of tone in the muscular fibre, an irritability dependent upon essential weakness of the muscular fibre, or having its seat in primary irritability and malnutrition of the governing nervous centre. This same fibrillary contraction in isolated and individual muscles or even in groups of muscles, is observed as a temporary and transient phenomenon under a variety of circumstances, and as an accompaniment in several diseases.

It is common enough to have patients asking advice for an annoying twitching frequently of the eyelid, or of the muscles upon the side of the nose, and careful investigation generally shows that such persons are suffering from debility or nervous depression from whatever cause. When certain muscles or sets of muscles are seldom called into violent or prolonged exercise, any unusual demand upon them will produce a manifestation of this phenomenon, plainly by bringing about an exhaustion of their inherent muscular tonicity, and producing a secondary irritability.

Any inordinate and sudden mental emotion is capable of producing the same result, as for example, fear, anger, and simple anxiety when intense; these act through nervous depression and an interruption of the regular and equable transmissions of that nervous stimulus which is requisite for the maintenance of muscular tonicity.

These emotional influences show themselves for the most part about the muscles of the mouth; and so the quivering of the lip may be an indication not necessarily of fear, but equally of an anger which is dangerous, or an anxiety which calls for sympathy. In affections of certain groups of muscles supplied by some one nerve as in facial paralysis, (Bells palsy), in certain cases and in certain conditions of the nerve the same manifestation is presented.

In two cases of this paralysis now under my care this fibrillary contraction sometimes of one muscle sometimes of another, has been a source of much annoyance to my patients and of anxiety to myself. In both there was coincident pain and tenderness over the trunk of the nerve as it emerged from the stylo-mastoid foramen, and in both cases did the trouble cease on the subsidence of such evidence of inflammation in the nerve supplying motor power to the muscles.

The muscular weakness which is the initiatory symptom of the disease is developed slowly and gradually, but with an appalling and steady advance closely followed by the twitching and by

a corresponding atrophy until after few and occasional intervals of apparent halts in its disastrous march, it finally consumes and lays waste the muscles of relation throughout the body, arrested in its course only by the death of the unfortunate sufferer who is deprived of life by the invasion either of the muscles of deglutition or of respiration, who is in other words either strangled or starved to death.

The rectum and bladder seem never to be affected. The tongue is occasionally implicated, the organs of sense and intellect remain intact, so that while the miserable sufferer may feel, and hear and watch the progress of the case he is deprived of uttering even an articulate complaint or of expressing in audible language his reconciliation to his inevitable fate.

The respiratory muscles become implicated at an advanced stage of the disease and renders the subject an easy victim to an attack of bronchitis, which sometimes supervenes.

The association of the muscular weakness with the atrophy, and the regular order in the sequence of the phenomena, are so peculiar and characteristic as to render the diagnosis of this disease easy and certain in the vast majority of cases.

Sometimes, however, the muscular Atrophy is obscured by the conservation of the adipose tissue, so that no wasting is apparent. Niemeyer refers to certain cases in which the volume of the paralyzed muscle was decidedly increased instead of lessened by proliferation of the interstitial fatty tissue. These cases escape recognition unless closely analyzed and tested by every means in our power. And, so whenever there is a doubt as to the true condition of the muscles, electricity should be brought to bear, by which means we may readily determine the degree of contractily and relative muscular atrophy.

"Progressive Muscular Atrophy" may possibly be confounded with that resulting from a rheumatic affection of the muscles, sometimes involving as it does many muscles of the body. But with the history of the case, (supposing we see it only when the damage has been done), which tells us of much severe and continued pain, of constitutional disturbance, and with the application of the faradic current, which gives a perfect response in Rheumatic Atrophy, there need be no difficulty in the differentiation

There is a possibility of confounding the disease under consideration with the paralysis resulting from lead poisoning, in as much as either of them begins in the hand. But it is to be observed that while lead produces its evil effects mainly upon the extensors, the ravages of Progressive Muscular Atrophy are confined to no particular sets of muscles.

In our case a careless and superficial observer might be led into error by the fact that the patient had been for so long a laborer in lead mines where he might reasonably have been affected by its poisonous influences; but such a one would overlook the time that had elapsed after the retirement from such occupation and the onset of the disease; Besides the absence of colic and other signs of lead poisoning. Moreover, that valuable aid in certain paralytic affections, electricity would have shown in the case of lead a total absence of muscular contractility

Superficial examination will sometimes lead to confounding a paralysis resulting from injury to a nerve with Progressive Muscular Atrophy, and just such a mistake occurred to myself about a year ago in the person of a patient who had a tumor, which was not mentioned, situated immediately over the ulnar nerve, resulting in the paralysis of the muscles of the hand supplied by that nerve, so that there was produced the characteristics *main en griffe* or bird's claw hand. My attention being attracted by this striking feature I was satisfied in my diagnosis, but a few days after, while applying electricity I discovered the tumor and rectified my blunder.

With regard to the true Pathology of the diseases opinion is divided betweena belief in the existence of a primary central lesion of the anterior columns and anterior roots of the spinal cord, and a primary essential disease of the muscular fibres themselves. The weight of opinion I think is in favor of the last view; viz., that it is a disease primarily of the muscular tissue.

Its causes are obscured, yet there would seem to be a constitutional predisposition as one of its factors, from the undoubted evidence we have of its hereditary transmission and its occurrence in several members of the same family. Exposure to the cold and over exercise of the muscles may be existing causes, but this supposition needs confirmation.

The therapentics of Progressive Muscular Atrophy is not encouraging, our resources here are few, and of these few, electricity persevered in, in combination with tonics, is most deserving of trial.

CLINICAL LECTURE

MULTIPLE CEREBRO—SPINAL SCLEROSIS,

BY J. K. BAUDUY, M. D.,
Prof. of Psychological Medicine and Diseases of Nervous System. Mo. Medical College.

To-day, Gentlemen, I present you a case of unusual interest; one which affords you an excellent opportunity to study a comparatively rare affection, not easily diagnosed, unless you possess some familiarity with the different clinical varieties of sclerosis.

The patient, John Parle, aged forty-two years, has been an inmate of the City Hospital for the last ten months; he is a laborer by occupation, and a native of Ireland. His disease commenced

three years ago. He had always enjoyed good health prior to his present illness, with the exception of several attacks of intermittent fever, which yielded to the ordinary treatment. About ten years ago he fell from a hand-car, receiving a slight concussion on his left side, but recovered in a few days and resumed his ordinary employment. Six years ago it was supposed that he had contracted syphilis, a small sore having made its appearance upon his glanspenis. Never having suffered from sore throat, alopecia, secondary eruptions or glandular involments, I am not inclined to accept the opinion of his previous medical attendant, that he was at one time a victim of constitutional syphilis.

Three years ago he first experienced the prodromata of his present attack. The first symptom observed was a heaviness of his feet and legs, pointing to evident disturbances of motility. He, however, continued his ordinary occupation without suffering any pain, until about six weeks afterwards. The pain then complained of was first felt in the lumbar region, being of a sharp, piercing character. It was only of about six hours duration, and then disappeared. Two weeks afterwards the same symptoms reappeared with the same intensity, nor were they more prolonged. A month later lancinating pains of great violence situated in the spinal cord and shooting down the legs and feet greatly annoyed the patient, which lasting for twenty-four hours, have never since recurred. Some days subsequently whilst walking from his boarding house, his limbs seemed suddenly to give way, and he was obliged to maintain himself erect by holding on to a fence, gradually and with difficulty reaching home. Since then he has never been able to walk except with great caution, and at present requires the assistance of a cane, the aid of surrounding objects, and sometimes of friendly help, in order to accomplish ordinary locomotion with any success.

About this time a spasmodic movement or jerking of his feet developed itself, followed by a tremulousness of the paralyzed parts. The tremor was produced when attempting to walk or performing any voluntary movements. Before these most marked and pathognomonic symptoms occurred, he had some trouble in controlling the passage of his urine and feces; he was then entirely unconscious of the acts of defecation and urination. A careful review of the present condition of our patient reveals the presence of a partial paraplegia. When the tremor occurs, which is never the case when he is perfectly quiescent, he loses all power and falls to the floor. He now, however, becomes conscious when the urgent desires which precede the necessity of relieving his bladder occur, but he is then obliged to introduce his finger into his rectum and press upward, which enables him to urinate without trouble; but should he retain his urine too long, it passes away incontinently. He has only a moment's warning previous to defecation, and he can by no effort suspend or delay the operation for an instant. Sensation is slightly impaired, and for three years he has had no venereal appetite nor an erection of the penis. His general health is excellent, and all his thoracic and abdominal organs are in a perfectly normal condition.

The different forms of sclerosis, of the diffused and multiple kind, may be divided clinically—first, into two cranial varieties: the multiple cerebral and diffused cerebral. The spinal cord may be attacked by a sclerosis of its anterolateral colums, the symptoms of which would plainly point to disturbances of motility; or by sclerosis of its posterior columns, accompanied by marked sensory impairment with striking in cöordination of muscular movements as a pathognomonic symptom. We have an intermediate variety between cranial and spinal sclerosis, the subject of to-day's lecture, multiple cerebro-spinal sclerosis. Tremor is only developed when the disease involves the superior cerebro-spinal ganglia and then constitutes a most important manifestation.

Until within comparatively a very recent period paralysis agitans, multiple cerebral sclerosis and multiple cerebro-spinal sclerosis were inextricably confounded together under the one common name of paralysis agitans. The two former are organic diseases of the nervous system, the latter is a neurosis of functional origin. Diffused sclerosis consists in a morbid proliferation of the connective tissue cells or neuroglia at the expense of the ultimate constituents of the nervous elements, encroaching upon them and leading to their gradual atrophy. It is characterized by induration and disappearance of the ganglion cells and nerve fibres; is not distinctly circumscribed except by the anatomical limits of the region affected.

Multiple Sclerosis, on the other hand, involves several parts of the same ganglion, and consists of nodules or plates of sclerosed tissue scattered throughout its substance. We are indebted to the comparatively recent researches of Messrs. Charcot and Vulpian, for the proper elucidation of this difficult subject, and Dr. Meredith Clymer of New York was the first to present their views, somewhat modified by his own opinions, to the American medical profession. The initial symptoms of multiple cerebro-spinal sclerosis depend as to whether the first pathological changes occur in the brain or spinal cord. In the former case cerebral, in the latter spinal symptoms will immediately attract our attention.

In the case under consideration the symptoms were ab initio distinctly of spinal origin. The ordinary cerebral symptoms are vertigo, epileptiform attacks and derangements of the nerves of special sense, and *especially tremor preceding paralysis,*

none of which have marked the progress of the affection in the patient I present to you this morning. Tremor itself is but an evidence of debility or nervous asthenia, and acquires significance according to its clinical manifestations. When it *precedes* paralysis it points to multiple cerebral sclerosis, and is provoked by movements both voluntary and involuntary on the part of the patient; where it *follows* paralysis it is an accompaniament of the multiple cerebro spinal variety of the disease, and is only developed by movements distinctly voluntary in their origin; it is often as an isolated symptom, an evidence of commencing cerebral disease. Hence upon these last mentioned facts the diagnosis of this case is based and stamp it with features as characteristic as they are unmistakable.

The tremor, nystagmus, festination, and a peculiar trembling of the tongue, without being pathognomonic symptoms, are oftentimes present, and are therefore truly significant. My experience does not lead me to believe that the sensory disturbances are very manifest, though frequently some slight sensory impairment exists; especially at times will we discover an absence of that exact "topographical knowledge" so familiar in the history of locomotor ataxy. Of the etiology of this affection I think it can be safely asserted that we know absolutely nothing, as its causation is shrouded in a mysterious darkness as yet unexplored, and which will doubtlessly remain long hidden.

In a diagnostic point of view it is important to bear in mind the following distinctions: *Paralysis agitans* is a *functional* disease of the nervous system dependent on a morbid condition of motor roots, and in which there is *no paralysis*. *In multiple cerebral sclerosis* tremor always precedes paralysis, is accompanied by festination, and the tremor is produced by movements whether voluntary or involuntary. *In multiple cerebro-spinal sclerosis* paralysis precedes tremor, and the latter is only developed during voluntary muscular movements; it is likewise accompanied by festination.

In sclerosis of the *antero-lateral columns* there is no tremor, no festination.

The prognosis is that of all progressive affections which we can not possibly arrest, and which despite our best efforts have but one termination.

As regards treatment, I have therefore little to claim your attention for, as my faith in its efficacy is weak and beyond the judicious use of the continuous galvanic current applied to the brain, spinal cord, and sympathetic nerve, I think all recommendations useless and simply empirical.

Original Communications.

THE INJECTION OF LIQUID REMEDIES INTO THE CAVITY OF THE TYMPANUM.

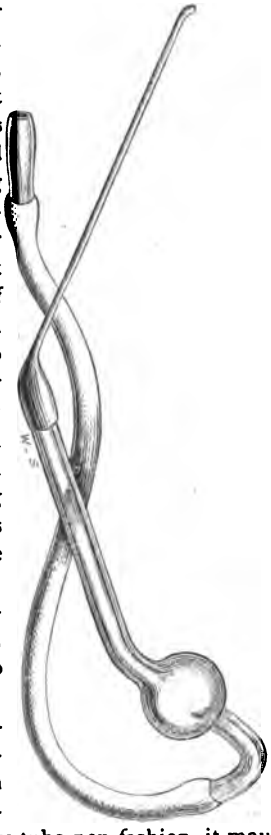
BY CHARLES A. TODD, M. D.

Adj. Prof. of Surgery, and Lecturer on Diseases of the Ear and Throat, Missouri Medical College.

The cavity of the tympanum, or middle ear as it is termed in Otology, is subject to inflammatory processes that according to the violence or long continuance of their action may cause great impairment of the function of hearing. A brief consideration of the various delicate and complicated structures that are contained within this cavity or are found upon its walls, all being more or less important parts of the whole organ of hearing, will make evident how this impairment may be occasioned, and the many different forms it may assume. Such being the anatomical and physiological importance of the middle ear, it is highly necessary that inflammations of this region should be promptly and energetically treated, that their mischievous effects may be limited as much as possible. But owing to the situation of the tympanum, deep within the temporal bone, the treatment of its diseases is anything but an easy task; and at best, notwithstanding all the skill with which long study and experience may endow the aurist, it sometimes proves very tedious and discouraging in its results. Hence it is the constant endeavor of the aural surgeon to improve upon the existing methods for the treatment of this form of disease that occurs so frequently in his practice. I beg leave to call attention for an instant to the dimensions and general form of the tympanic cavity.

The middle ear may be roughly described as an irregular, hexagonal space, with vertical and horizontal diameters of about one-half an inch and the transverse, one-fifth. Anteriorly it expands a little above its middle into the tympanic mouth of the Eustachian tube, posteriorly at its upper portion into the common opening of the mastoid cells, termed the antrum of the cells. Across this small cavity extends the three ossicles and the tendon of the tensor tympani muscle. From the size and form of the middle ear it is plain that when filled with inflammatory products, retention of the same in some of the several recesses is certain, unless efficient artificial means are adopted for their expulsion. When perforation of the membrana tympani is present, as is expected during the course of suppurative otitis media, there are two principal methods resorted to for the removal of the pus; in appropriate cases we may expel it by water or air forced through the external auditory passage, middle ear, and Eustachian tube into the pharynx and nasal passages or reverse the procedure. But

after following both methods, purulent matter may still lurk behind in some one of the pockets to irritate subjacent mucous membrane, while at the same time it prevents its contact with the remedies afterwards introduced. That this retention will sometimes occur, I have noticed through the experimental use of an instrument to be shortly described. Now, it is evident that if a tube with a properly curved beak be inserted through the perforation, into the tympanic cavity and fluids be then injected through this, every recess not completely closed by inflammatory thickening can be washed out and remedies afterwards be efficiently applied by the same means. An apparatus that will accomplish this result is here represented in full size.



It consists of a silver tube having a curved beak at one extremity, and at the other a socket which fits upon a glass pipe bent a little beyond its middle, and carrying a bulb and piece of rubber tubing. The silver and the glass tubes meet each other at an angle of about 130° and lie in planes perpendicular to each other. In their horizontal portions they are three inches in length, the rubber with mouth-piece measuring ten inches. To use this instrument, apply the lips to the mouth-piece, the beak being immersed in the liquid, draw up into the bulb a sufficient amount. Then, keeping the membrane well illumined, introduce the beak through and behind the perforation, holding the glass tube pen-fashion, it may be directed towards any point. Once in position, it is held firmly and the liquid blown with considerable force if desired, so as to reach remote portions of the tympanum. The advantage of blowing in the liquid instead of forcing it in by means of a syringe is considerable, as it is scarcely possible, using a syringe, to keep the beak from moving about in the ear, a result by no means conducive to the comfort of the patient if much force be applied. It is only proper to state here that since using this instrument in my clinic, I have been informed that the plan of thus injecting the middle ear is not a novelty, but so far as I have learned, it has been accomplished only by means of the silver tube and a hand syringe, which for reasons already stated, I should not like to adopt.

Clinical Reports.

SURGERY.

SURGICAL CLINIC AT ST. JOHN'S HOSPITAL.

EXTRACTS FROM CLINICAL REMARKS OF PROF. LANKFORD, UPON A CASE OF STABBING WOUND OF THE CHEST—LESIONS OF THE VISCERA.

REPORTED BY T. E. HOLLAND, M.D.

GENTLEMEN—The patient D ——, in bed 44 St. Xavier's ward, is twenty-two years of age. He is single, and a shoemaker by occupation. Four days ago he got into a violent altercation with a fellow laborer and was stabbed with a shoemaker's knife in the left breast between the seventh and eighth ribs, and one and a half inches outside a line drawn downwards over the nipple. The blade was three inches long, about an inch wide, and was held in the right hand of his antagonist. The patient was weak and faint immediately after he received the thrust and was placed in a recumbent position when he soon dropped into a slumber, which lasted, however, but a short time. He complained of no acute pain. He was stabbed about 3 o'clock in the afternoon and towards midnight had symptoms of suffocation, and after some labored expiratory efforts expectorated blood pretty freely. It was of a mixed character. During this time his pulse was about 120 per minute, his extremities and surface cold, and he was very restless, and thirsty. He was admitted to the hospital about twenty hours after he was wounded, with no marked change of symptoms except that he seemed to be growing more and more restless, and his pulse more frequent and hard, with dry mouth, and deficient urinary secretion. On the evening of the third day he had fever and acute pain in the left side, but no more hemorrhage. Now, this morning, there are loud friction sounds over the entire præcordial region; so loud, indeed, that it is easy to distinguish them with the ear some inches from the thorax, and the respiratory murmur does not in the least obscure their distinctness. He complains of sharp, pricking pains in the left side upon taking a full inspiration. He has cough with slight mucous expectorations, but no trace of blood. There is a small area in which no vesicular murmur is heard. These are his prominent symptoms, and it is plain that along with pleuritis and circumscribed pneumonitis of the left side he has marked pericarditis. Indeed, this has become the most prominent and interesting symptom in the case. Now, did the knife touch the pericardium, or is this an instance of "extension of inflammation by contiguity." Or in other words, is the pericarditis secondary to the pleuritis? Remembering that the knife was held in the right hand of the infuriated antagonist and that he plunged it into his victim with all the force of an enraged madman; that the probe showed the direction of the cut to be upward and inwards, and that the pleuritis, pneumonitis, and pericarditis were discovered about the

same time, we must logically conclude that the pericardium was struck by the knife; and this, notwithstanding the distance from the apex of the heart at which it entered.

After once more calling your attention to those loud and beautiful friction sounds, which have been observed with much interest by my friends, Profs. Robinson, Bauduy and Dr. Todd, and which I shall give a number of you the opportunity of listening to for yourselves, I will dictate a prescription, and leave him for the present. We shall order for him one quarter of a grain of morphia, and twenty drops of laudanum, in the acetated liquor of ammonia, to be repeated every three hours until he is narcotized—*i. e.*, until his respirations have been reduced to from eight to ten per minute, his pupils contracted, his pulse less frequent, his sensibility to pain controlled, and until he shall be wrapped in such a profound sleep that it may require some decided effort to arouse him. The administration will then be stopped, and the dose only repeated often enough to sustain the first impression for about thirty-six hours longer. It may be proper to remind you here that since he was wounded his bowels have been evacuated several times, and he has taken little, if any food, otherwise it would be proper to evacuate them with a saline. I enjoin the assistant to see that his bladder is emptied, if necessary by the catheter, for such large doses of opium so dull the sensibilities that the patient is often not reminded that his bladder is full by a desire to urinate. During my student life I saw a case of this kind die in consequence of the assistant's neglecting to draw off the urine with a catheter. This at least was the opinion of the eminent gentlemen,* who at the *post mortem* founed the enormously distended bladder, ureter, &c., pressing upon the kidneys until the secretion was interfered with; and it left upon my mind an everlasting impression.

So, gentlemen, here we have a traumatism of the thoracic viscera, which we treat with opium alone, and upon which I now tell you I place great reliance. This is with me a faith partly the result of experience, partly of teaching or authority, and partly rational. I will give you a brief narrative of a few typical cases which have seemed to me very positive evidence. It is little more than a year ago since young Mr. S——, of this city, in a fight with some rough characters received two stabbing cuts; one in the back, with some weapon which we supposed to be the spear of a so-called "sword cane." This passed in between the tenth and eleventh ribs and downward, so far as to make it certain that the colon had been penetrated. The other cut was in the right hypochondriac region, the direction being towards the stomach, and this was the dangerous one. Very soon after he was wounded he began to vomit blood, and it was not long until he had lost so much that he was exsanguine, giddy and almost pulseless,—indeed we thought him dying, for it was clear that the left lobe of the liver and stomach had both been cut, and of course the peritoneum had been seriously wounded. And not this alone, but we thought at the time and still think that there was extravasation of blood into the peritoneum. I gave him the eighth of a grain of morphine hypodermically, directed that he should swallow as much ice as possible, have a teaspoonful of gallic acid in a wine-glassful of water, and having placed a thick compress over the regions of the stomach and liver, confined it firmly with a bandage. This was about an hour after the fray. Two hours after the first hypoderimic injection, I repeated it, and left with instructions to give him thirty drops of laudanum in an hour and repeat it every three hours, to get him to swallow more ice, keep him absolutely quiet, &c. Ten hours later, Prof. E. H. Gregory visited him with me. The pulse was now not quite so fast, and had a little more force, but otherwise his appearace was worse. His abdomen was distended, tympanitic and tender. He had lost no blood between my visits. We agreed to continue the opium, prescribed some beef-tea, a little wine-whey and cornstarch. There was little change during the next fifteen hours, but about thirty-six hours after the injury the whole abdomen had become exquisitely sensitive and felt hard, his mouth dry, his urine scanty and high-colored, and in a word he now had an extensive and violent peritonitis. This was in the evening, and we now increased the opium and ordered warm fomentations to his abdomen. The next morning, his left parotid gland was enormously swollen, and the right to a limited degree, (a symptom of grave significance.) His skin had a strange cadaveric appearance, and he was barely able to swallow water. He had expressed no desire to urinate for several hours. I passed a catheter and drew off two or three ounces of dark heavy urine. The tissues about the cut were swollen above the surrounding parts and threatened an extensive suppuration. Surely this was a most gloomy and unpromising case. Still, we persevered with the opium, the only change being to give it in solution with a saline diuretic.

It was nearly three days (five after injury) before we could detect any favorable symptoms, and then the swelling about the jaws began to decrease, his urine began to flow more freely, some moisture returned to his lips, the abdomen was not so tender to the touch, he had an unsolicited action of his bowels, and called for *ice cream* to eat. During these five days he had been kept profoundly under the influence of opium, and now for the first time its administration was relaxed, but not yet abandoned, for he was not yet out of danger; but I may close the history of the case by telling you that as improvement slowly progressed, he was gradually allowed to pass from under the influence of the drug and eventually made a good recovery.

The next case was a Mr. D——, twenty years of age, belonging to a respectable Cincinnati family. He left his native town in search of his fortune, and landed in the Great City of the West sometime last spring. But he was unfortunate, and had not been here more than a month or two before he found himself a menial, on duty at Barnum's Hotel. One night in the month of September, while he lay in his humble bed wrapt in peaceful slumber, a drunken fellow-laborer entered their common room and seeing him upon his face and all unconscious, he drew a small dagger and plunged it into his back. His cries of fright and pain scared away the mean assassin and brought assistance. He was served by a medical gentleman that night, but I did not see him until 2 o'clock P. M. the next day. He complained of sharp pain upon deep inspiration, and stated that he had vomited a small quantity of blood along with a natural coaction a few hours after the stabbing. The course of the probe established beyond a

*Prof. Pancoast.

doubt that the knife had penetrated the abdominal cavity. I had him removed to St. John's Hospital and put into a pleasant room, and apprehending peritonitis, ordered that he have twenty drops of laudanum and a sixth of a grain of morphia in the acetated liquor of ammonia every two hours until three doses, and then that the doses be repeated every four hours instead of every two. He was given a mixture of bitartrate potash to drink when thirsty, instead of water. When I visited him the following morning, in company with my friend, Dr Robinson, I found all my anticipations realized—*i. e.*, he had a general and severe peritonitis. Without going into the details of treatment it is sufficient for my purpose to say that I kept him narcotized for a week less one day, and he finally made a good recovery and was taken to his home in Cincinnati, three weeks after he was wounded.

In 1871, along with my friend Dr. Wood, of Kansas City, I treated a boy of thirteen years, for a general pleuritis, caused by the wheel of a wagon passing across his chest, breaking three ribs and driving the broken ends through the pleura and into the lung. So far as the inflammatory complications were concerned, the general plan of the treatment was after that of the previous cases, with equally good results.

Mr. E——, living on Broadway, in North St. Louis, fell from the third story of a building, (his occupation being that of a carpenter), and in addition to fracturing two ribs, sustained severe injuries in the abdominal region. My friend, Dr. Curtman, being called upon, finally referred the messenger to me. I found the man in a partially recovered condition from the effects of the shock, and had him sent to the City Hospital as soon as his condition would admit of it. He entered the surgical ward on the 24th June of last year. In sixteen hours after admission he had well marked peritonitis and pleuritis. His chest was bandaged in the usual manner, and he was placed upon the "opium treatment." He was discharged well, upon the seventeenth day after admission.

I have notes of twelve other cases, all of which furnish evidence similar to the cases just given.

Opium has long had a distinct and important office assigned it in the treatment of inflammation in most standard surgical treatises, but what I wish to impress upon you this morning is, that it is *the* indispensable agent in the treatment of all traumatic lesions of the serous coats of the abdominal and thoraeic viscera. Of course, I mean active traumatisms; and, gentlemen, it is not one of those unsatisfactory practices established solely upon the basis of experience, but it is a *rational* practice. The grand rule by which a medical man is governed in the treatment of all acute active inflammations, is to put the inflamed part to rest. To secure this end he directs all his means. And see how potent an agent opium is here. Those nerve centres which act only in response to a stimulus from without, are deprived of that stimulus by the action of the opium, and involuntary movements are partially, enough for all practical purposes, prevented. The friction of serous surfaces, made rough by swellings and exudations (and which in time becomes an exciting cause of new inflammations) is reduced to a minimum. The irritations constantly multiylying through their own agency, and acting upon an already excited heart (partly so from other causes), goad it into a maddened force, and thus is the heated blood in greater and greater quantities pumped into overcharged capillaries until the morbid process passes beyond the possibility of repair and recovery. These irritations are continued, and the circulation somewhat tranquilized *i. e.*, the frequency and force of the heart's action reduced) by the action of opium. The grand result achieved by its use, then, is *rest*,—rest for injured and tender surfaces, rest for the peripheral sensory nerves and their appropriate centres, and rest for the great organ of the circulation. Rest! and rest means resolution, absorption and recovery. Judiciously combined with diuretics, &c., there is no other treatment worth recommending to you for such lesions.

I had intended to say something to you this morning about the comparative dangers of chest and abdominal lesions, but will dismiss this now with the observation, that the latter are almost beyond comparison more dangerous. More of this another time.

At the time of going to press, the first of the above cases was so far recovered as to be walking about the wards of the Hospital, the opium being persevered in, as foreshadowed at the clinic.

OTOLOGY.

THREE CASES OF POLYPUS IN THE EAR.

BY CHARLES A. TODD, M. D.

By the term Polypus we understand any soft, pedunculated growth that occupies a cavity communicating directly or indirectly with the outer world. Aural polypi may occur upon the walls of the external meatus, upon the membrana tympani, and within the middle ear or tympanic cavity. As a rule, their existence is due to previous inflammatory processes, and especially to those of a chronic suppurative character, to which cause may probably be referred the great majority of all those arising from the mucous membrane of the middle ear. As an accompaniment of these polypi we expect to find persistent otorrhea, indeed, this may be the only symptom of which the patient complains, ignoring alltogether the cause of the troublesome discharge, that being more or less out of sight, and so fulfilling the rest of the old proverb.

The treatment of aural polypi, in general terms, consists simply of extirpation. This may be effected either by persistent use of caustics, astringents, or by operation, which is the most *preferable method* when practicable.

CASE I.—Mr. K——, aged 35. Has had a purulent discharge from the left ear for at least seven years; is not able to give any account of its origin. Has occasionally noises in this ear. Has also attacks of vertigo with confused vision and general disturbance of perception, but he appears to have suffered at the same time from dyspepsia. Examining the ears, I found slightly protruding from the left meatus a firm polypus.

The right ear showed inflammatory thickening. Hearing distance, left,—0; right, eight inches. Tuning fork applied to vertex heard best in left ear. Patient has also pharyngeal and nasal catarrh. I proceeded to operate on the polyp, using Wilde's snare with a silver wire loop. Not being able to find the pedicle after placing the loop around the growth, I pushed it down into the

meatus as far as it would go, and then drew it tight until failing to cut through the tough tissue, the wire broke. A fresh wire; somewhat less in thickness than ordinary silver suture wire, was applied with the same result. Only when doubled was it equal to the amputation. A considerable stump was left, but as the patient complained of the pain, no further operation was attempted at the time. This stump proved to be of great firmness, being composed chiefly of old fibrous tissue, and required several sittings for its complete removal. Thorough cauterization with solid chromic acid, applied by means of an instrument suggested by the case, effected a speedy extirpation of the growth after the total failure of the usual astringents and caustics. The meatus now being clear, I found that the polyp arose from the upper posterior margin of the membrana tympani, which was thickened, very vascular and, exhibited a small perforation in the lower middle portion. Air passed freely per tuba through this perforation.

This polyp, judging from its degree of consistency and the history of the case, had been of slow growth and was probably excited by the original otitis that had also caused the perforation. Removal of the polyp improved the hearing but little, as other and more serious lesions existed as results of the old inflammation.

CASE II.—Patient at City Hospital clinic, aged 38. Came into hospital with advanced phthisis of both lungs. Has purulent discharge from left ear, which he states to be of only a few weeks standing. After syringing the ear the membrana tympani is found to be mostly destroyed, and a small polyp fills the perforation. Careful probing of the ear discovers some necrosis of the inner bony wall of the middle ear. This unfortunate condition of the parts contra-indicated operation, and allowed only the simple treatment by frequent syringing with warm water and instillation of mild astringents. One week later, patient complained of great pain in and about the ear, which on examination I felt justified in referring to the retention of the pus behind the polyp, this now acting as a plug in the meatus. The absorbents below the ear were swollen and painful; mastoid process not noticeably painful or reddened; operated with Wilde's snare, and relieved the patient entirely of his pain. But of course thorough cauterization being out of question, and the local condition being rendered intractable by the great constitutional disease, recurrence is inevitable.

This necrosis of the walls of the tympanum is not infrequent when otitis media attacks a patient in the last stages of phthisis. The tissues suffering in the general disorder become readily disintegrated and, as the mucous membrane here acts also as periosteum, the bone is apt to be denuded and in this condition quickly necroses. Two specimens in my possession, taken from phthisical patients, show very extensive destruction of the mucous membrane of the middle ear, and consequent necrosis. The fallopian canals had been opened during the course if the mischief, and the facial nerve thus lying unprotected had shared in the general destruction, which lesions during life had given rise to very interesting symptoms in the two patients. In the case under consideration, the polypoid growth appeared under favorite conditions; chronic suppuration and free formation of ill-nourished granulations in the middle ear.

CASE III.—Child in St. Luke's Hospital, aged two years. Early last summer he had the measles, which was followed by an attack of chronic inflammation of such length and severity, that he survived only through the most assiduous and intelligent care and nursing. Rallying from this second disease, a very fœtid discharge from both ears was noticed, and my attention called to the fact. Examination showed almost complete destruction of both membranes, and granulating tissue in the middle ear.

The patient recovering very slowly, and being not yet beyond danger, systematic use of the syringe only could be advised. Later patient's strength improving, and at the same time the granulations already developing into polypoid growth, positive interference was demanded. By repeated use of nitrate of silver and the snare I succeeded for a while in suppressing the growths, as constitutional remedies of course were being kept up by the skillful physician in charge, Dr. Pottenger. These growths, however, returned again and again with most discouraging persistence and exuberance, until nothing but the impending danger to the child of complete deafness or worse, stimulated me to the disagreeable task. Indeed, it seemed doubtful whether the function of hearing had not been already destroyed; in case of very young children, it being difficult to ascertain the exact state of the hearing, especially when sickness has blunted the general sensibility. The growths at last blocked up the left meatus, causing retention of the pus and consequent involvement of the tissues over the mastoid process, which ended in formation of a post-auricular abscess and a fistula. At present the condition of the child is as follows: general health tolerable, polyps destroyed, fistula back of left ear, but in process of healing, total loss of hearing. There have been at times alarming cerebral symptoms, that in such cases *are always to be apprehended.* The anatomy of the parts will readily explain the possibility of such complications. In this case the otitis resulting in the perforation and fatal sequelæ, originated during the attack of measles, the child afterwards being too severely ill to call immediate attention to this condition. As the child hears nothing, it of course does not talk. Much of deaf-mutism can be referred to attacks of measles and scarlatina early in life. In these exanthemata inflammation of the mucous membrane of the fauces is a prominent symptom; by continuity of tissue this inflammatory process extends up through the Eustachian tube into the middle ear, there to set up secondary mischief.

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OPTHALMOLOGY.

ISCHÆMIC AMAUROSIS, (ISCHÆMIA RETINÆ).

BY PROF. CHAS. E. MICHEL, M. D.

As the full history of this rare affecton, (a few cases of which have been observed and recorded by Graefe, Heddans, Rothmund and others,) remains yet to be completed, and as there is much to be explained in regard to the *modus operandi* of the remote general causes producing the almost complete absence of arterial blood in the retina, and as carefully observed cases placed on record must prove of invaluable service in hereafter determining the knotty points of immediate cause and treatment thereof. I offer the following case as

being one accurately observed from the very inception of the primary disease, and also as having furnished a most happy result, closely following the treatment instituted.

The history of the primary affection, kindly furnished me by the attending physician (Dr. I. M. A. of Liberty, Mo.), I will give in his own words, he being one of the most learned and eminent practitioners of the State. Here it is:

"Sept. 27, 1873. S. A., aged 5½ years, about seven o'clock p. m., was attacked with cholera morbus. At first vomited undigested matter, which he ate for dinner; afterward water and mucus, which continued until midnight. The first action from the bowels contained undigested matter, after which they looked very much like rice-water. His discharges were very frequent and large until midnight, after which time his bowels did not act until next evening. I gave him plumbi acetas gr. *ss*, tinct opii gtts. *v* every two hours, until his bowels were checked, as stated above; also applied mustard over stomach and bowels until skin was made red. At midnight his pulse was very small and frequent; skin clammy; eyes very much sunken. Gave small quantities of whisky and ice until morning. Rested tolerably well from midnight till morning.

13th, a. m. Very much reduced; eyes much sunken; pulse about 100 per minute and regular, rested tolerably well except vomiting every two or three hours; not much thirst. Gave small quantities of liq. calcis and milk every two or three hours, which was relished.

13th, 3 o'clock p. m. Began to vomit about noon, every few minutes; skin hot; pulse rapid and much stronger. Great thirst; very sensitive to pressure over stomach; very restless. This condition continued during the night. Gave him tinct. opii gtts. *v* every three hours, which he did not retain. After which I gave tinct. opii gtts. *x* in starch water, by injection every three hours, which was retained and produced the desired effect. I also gave *crushed* ice frequently, which was not retained long.

Mid-night. Condition same; fever slightly remitted between this and morning. Gave gr. *i* of quinia sulph. combined with tinct. opii gt s. *x* every four hours by injection; also gave two ozs. milk every four hours by injection.

Sept. 14th, 7 o'clock a. m. Condition same; continued treatment; bowels acted during night; action consistent; retained injection well; kidneys acted twice, quantity sufficient. Applied hop poultice to abdomen.

Midday. No better; fever slightly higher; matter vomited slightly streaked with red blood; suspended quinine; continued other treatment; 7 p. m, no change.

Midnight—Pulse small and very frequent; feet inclined to be cold; discharged sufficient quantity of urine (Tested Acid.) Bowels acted and consistent; retained injection well; added quinine to tinct. opii as before; substituted beef tea and whisky by injection instead of milk.

Sept. 15th, 7 a. m. Rested when under the effect of opium; urinated; vomited ten or fifteen minutes after taking ice each time; matter streaked with red blood; growing weaker; continued treatment; left off quinine; continued other treatment; midday, no change.

7 p. m. No change; bowels acted. Midnight, added quinine to tinct. opii; increased the whisky.

Sept. 16th, 7 a. m. Pulse very weak and more rapid than before; skin inclined to be cold; have to keep the feet warm by artificial heat.

Midday. Opium has not kept him quiet; continues to vomit matter streaked with blood; urinated sufficiently; bowels acted; suspended quinine; other treatment continued.

7 p. m. Very restless. Vomited more frequent; did not retain ice but a few moments each time; pulse very frequent and small; eyes sunken and conjunctivæ very white; pupil fully dilated. Continued treatment.

Midnight. Added quinine to tinct. opii as before; continued other treatment. Urinated; bowels acted. No perceivable change in condition.

Sept. 17th, 7 a. m. Rested badly, inclined to be stupid; extremities have to be warmed by applied heat. Continued treatment and gave argenti nitratis grr. 1 6 every sixth hour.

Midday. Bowels acted; urinated; coma increased; vomiting not quite so frequent, matter contains small particles of purulent matter. Suspended quinine; applied mustard to spine; continued other treatment.

7 p. m. Coma increased. Continued treatment.

Midnight. Coma almost complete; refuses to swallow ice; has not urinated for twelve hours; bowels quiet; pulse growing feebler; skin and extremities more disposed to be cold. Added quinine and suspended tinct. opii; continued beef tea and brandy; applied small blister behind each ear and turpentine to spine; gave three injections of nitrate of potassa 10 grs. each, every two hours.

Sept. 18th, 7 a. m. Coma complete; blister has not drawn; has not urinated, nor is there any urine in the bladder; eye partially open; iris fully dilated; conjunctiva very white. Continued treatment; applied blister 4x4 over epigastric region.

Midday. Blister has drawn well; urinated freely; partially conscious; answers questions; no change in appearance of eyes; vomiting much less; takes ice when offered; rested well. Suspended quinine and continued beef tea and brandy.

7 p. m. Perfectly rational when asked questions. It is now observed for the first time that he cannot see; appearance of eyes the same; vomited much less. Continued beef tea and brandy injection; as he was suffering from blister gave tinct. opii by injection to produce sleep.

Midnight. Rested well. Continued treatment and ordered three injections of quinine gr. 1 each.

Sept. 19th. Much better. From this time forward he constantly improved, slowly however; continued to support him for several days with beef tea and brandy, after which we began small quantities of milk which he relished and asked for; drop solution of calabar bean in the eyes to produce contraction of pupil and continued it for several days but without any effect."

I saw the little patient on September 10, 1873, for the first time. He was then, to all appearances, in the condition of a person recovering from some severe disease, such as typhoid fever; he could scarcely stand alone, was extremely pale and much of his hair had fallen out, that which remained being dry and filled with desquamated epithelial scales. The stomach was still extremely delicate, bearing only the simplest food in small quantities. Buccal mucus membrane ashy pale. On examining the eye, the conjunctivæ were found of marble whiteness, and the pupils largely dilated. Tension normal. Vision was next tested and found absolutely extinct; the strong light of an argand burner

reflected from the opthalmoscopic mirror into the eye could not be distinguished from utter darkness. On examining the fundus of the eyes with the opthalmoscope, the following condition was revealed in both eyes alike: The media clear; the boy having dark brown hair, the entire fundus of either eye was pale, the choroids giving an ashy pale reflex; the optic papillæ were completely blanched, there being but one or two extremely faint and thread-like vessels (veins), which could be followed with difficulty to the more peripheral portions of the retina. No arteries could be detected after the closest examination.

I gave the patient iron, phosphorous and the extract of nux vomica in small doses until the stomach could bear larger ones, and at once (on October 11th), commenced the application of the continuous current from a Stoehrers galvanic battery (zinc and carbon) of four square inch surface, with a moderate charge. I applied the negative pole to the closed eyes, and the positive to the mastoid process of the same side for thirty seconds, six elements being used at first. At the same sitting I also applied the same current to the sympathetic for the same length of time, a descending current being used (the positive pole placed a little below and behind the ear, and the negative to the opposite side of the spinal process of the seventh cervical vestebra). This was continued daily until October 30th. On October 19th, the eighth day of the treatment, large objects could be distinctly seen, and on October 30th he could read Snellens' test type, No. 1½, at ten inches. Apace with this improvement in vision, there was a gradual filling of a few of the vessels of the papillæ, the arteries could not yet be made out. The strength of the patient also commenced to return, but the pallor still remained. The field of vision was now tested and found to be very much narrowed. At the distance of fifteen inches it measured only six inches in diameter, (the peripheral portions of the retina had not yet regained their sensitiveness to the impressions of light, only the portions in the immediate neighborhood of the macula lutea having recovereo). The treatment was continued to January 1, 1874, the galvanic current being applied on an average of about three times a week, the strength of the current was also increased to twelve elements, and occasionally I carefully tested the effect of breaking the circuit. No undue irritation was produced thereby, the usual perception of "bright flashes" being obtained as in the healthy eye. At this stage of the case I deemed it advisable to suspend the electrical treatment, and sent the patient home for a time, the constitutional treatment being kept up. An opthalmoscopic examination previous to his departure showed but little change, if any. On Feb. 20th, I again saw and examined the patient and found a slight improvement. The field of vision had become enlarged, and the color of the fundus of the eye was less pale, the vessels being somewhat fuller. I again commenced the electrical treatment, this time breaking the current constantly, and have kept it up to the present day, applying it about three times a week.

Graefe and some other opthalmologists consider that such cases of blindness as the above are produced by an insufficient supply of blood to the retina, the heart's action being too weak to overcome even a normal amount of intra-ocular tension. In accordance with this view, and in order to diminish the intra-ocular pressure on the vessels, paracentesis oculi and even iridectomy have been performed, generally, however, immediately, or at least at no distant period, after the loss of sight, and in some cases this has proved successful. In the above case I did not deem it prudent to operate after either method for the following reasons: The loss of sight had existed too long a time (three weeks) to give a reasonable hope that the anæmia had not already had its full pernicious effect on the delicate retina; the extreme prostration of the patient would have made the administration of an anæsthetic for the operation a very questionable procedure, and without it the mental effect produced by and coupled with the actual pain of the operation would have undoubtedly added dangerously to the extreme prostration, which already existed. With these views, and from experience, having a full confidence in the power of the constant galvanic current to excite the circulation locally, as well as to produce very active nutritive changes in parts included in the circuit and the system generally through the sympathetic, I adopted the already mentioned treatment, and had the satisfaction of seeing my patient rapidly improve.

It might be supposed that as in some very rare instances, such cases as the above do recover without much local treatment, that this one may have been a mere coincidence, but when we take into consideration the long persistency of the condition and the rapid improvement, coupled with the well known powerful influence of the galvanic current, may we not at least hope that we have in this found a potent adjuvant to the treatment of such cases? Paracntesis, as insignificant an operation as it may appear to the oculist when compared to some others, is, nevertheless, not devoid of danger to the eye and is painful; iridectomy is a much more painful operation, more dangerous and leaves the eye in an impaired and mutilated condition. Should we not therefore at least give a trial to a remedy which is easy of application, painless and devoid of danger to the eye in itself? For my part I consider the possible loss of precious time entailed by the use of the remedy suggested, is more than compensated for by the advantages it promises.

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GYNÆCOLOGY.

A CASE OF ELYTRORRHAPHY.

CLINIC OF PROF. T. L. PAPIN, AT ST. JOHN'S HOSPITAL.

Reported by Jos. L. Bauer, M. D.

Mrs. S., aged 30, a native of Ireland, entered the Clinic June 24th, 1873. Her previous history established the fact that she had suffered from secondary syphilis, and had been the subject of two miscarriages. She had been married twice, and had given birth to three children. Upon examination, the neck of the uterus was found consierably elongated and hypertrophied; a great redundancy of the anterior wall of the vagina, and a permanent cystocele and rectocele. The inconveniences resulting from the morbid condition of the neck induced Prof. Papin to an operative interference, and she was accordingly operated upon, (Feb. 10, '74), and in consequence obtained considerable relief. On March 9th, she again present-

ed herself at the clinic to be relieved of her cystocele. Prof. Papin with the assistance of Prof. Lankford and Dr. Yarnall, then proceeded to perform the operation of elytrorrhaphy. The woman was placed in the left lateral semi-prone position, and put under the influence of an anæsthetic, (Methyl Bi-chloride) and Pallen's supporting speculum introduced. The anterior portion of the vagina was then seized with the vulcellum, and the sides and face of the triangle denuded of mucous membrane with a curved pair of scissors. The triangle measuring on its side two and one-half inches, and at its base three inches, was entirely denuded; after the parts were cleaned, the lips of the wound were brought together by four silverwire sutures. Having introduced a tampon saturated with carbolic acid and glycerine, the woman was placed in bed and morphia administered. Prof. Papin stated to the class that all of these operations were productive of the best results, if union by first intention occurred, and the benefit accruing would be much greater than if the wound healed by suppuration.

A SINGULAR CASE.

Mrs. F. aged 24, native of the U. S., had borne four children. Upon examination she was found to be in the fourth month of pregnancy. There was complete retroversion; the fundus of the uterus was lodged in the hollow of the sacrum, and the os over the symphisis pubis. After drawing off two and and a half quarts of water from the bladder the finger was introduced into the posterior portion of the vagina. No sooner had the finger reached the uterus when it immediately slipped into position. The woman exclaiming, "I am cured." At last accounts the patient was quite well and the pregnancy steadily advancing.

Monthly Abstract of the Medical Sciences.

THE ASPIRATOR.—Dr. Fleet Speir reports a case in which he used the aspirator fifteen times in a case of retention of urine from an enlarged prostate. It was done over the pubes without any injury to the abdominal walls. He likewise shows the necessity of repeatedly injecting the bladder through the tube of the aspirator after many punctures. This prevents the collection of mucus.—*Medical Record, March* 2, '74.

BACTERIA IN DISEASE.—Dr. Hiller of Winden, has come to the conclusion after many experiments, that bacteria are incapable of exciting inflammatory action or fever, that they can not multiply unless in the presence of putrid material, or after death, through the stoppage of the circulation; but when present after death, this is no proof of their existence before that time, but for reasons as given.—*Allg. Med. Central Ztg.* 1874.

MITRAL OBSTRUCTIVE MURMUR WITHOUT MITRAL STENOSIS.—This case occurred in the Bellevue Hospital where the murmur was developed in a case of cardiac dropsy. The murmur was loud and diffused. Upon post mortem examination, aortic lesions were found, which is deemed a necessity, for such murmurs without mitral lesion. There was anewrism of one of the aortic valves. There was no hyportrophy.—*Medical Record.*

A NEW METHOD OF EXTRACTING A FOREIGN BODY BY PERINEAL SECTION.—Dr. Geo. C. Smith of Rondont, N. Y., reports a case in which a cooper, while experimenting with a glass tube as a cutheter, broke it in the urethra, the distal portion slipping into the bladder. The next day he was prepared for perenial section, bilateral operation. The operation was successful and recovery quick. The chief point of interest was the smearing of the jaws of the forceps with taffy, to secure adhesion and protect the glass from breaking. *Medical Record, March* 2, '74.

EXTIRPATION OF THE WHOLE LARYNX.—Prof. Billroth has lately extirpated the whole Larynx for cancerous disease. After the primary extirpation of the growths, the return of the same suggested it to him. In this case, the vocal cords were entirely destroyed, but the neighboring glands not affected. The operation was performed and at last accounts the wound had healed and cicatrization commenced. A vulcanized rubber larynx is to be substituted. This is the first operation in surgery of the kind upon man, but he had performed the same experiments upon many animals.—*Wien Med. Woch.* 1874.

SCLEROSIS OF LUNGS IN ONE SIDED PHTHISIS.—Prof. Nothnagel of Leiburg, Germany, remarks in conclusion of one of his printed lectures, that diffuse sclerosis of the lungs (lungen schrumpfung) in Phthisis may be observed in such cases in which the process is limited to one lung This one sided localization occurs more frequently in the so called sub-acute cheezy and tuborcular pneumonia. Around the *vomicae* a luxuriance of connective tissue springs up, cicatrizing the former and reducing the parenchyma of the lung, sometimes even comprizing the pleura.—*Sam. Klin. Vort. No.* 66.

A NOVEL MEANS OF DIAGNOSING UTERINE AND OVARIAN TUMORS.—Prof. Simon, of Heidelberg, has lately introduced the method of exploring the peloic cavity for the purpose of accurately diagnosing pelvic tumors. Under a heavy anæsthesia of chloroform, he gradually enters the rectum of the patient with his whole hand. As soon as he has passed the sphinctors, the space of the rectum is quite sufficient to allow the free use of the fingers, like the vagina during parturition. This means proved successful in many intricate cases. The only inconveniences observed were fissures of the mucus membrane at the sphinctor portion, which disappeared in a few days.

ERUPTION FROM BROMIDE OF POTASSIUM.—Dr. Neumann of Vienna, has lately seen a case in which an eruption appeared upon the skin of a child, from the use of three hundred and sixty-one grains of the Bromide for convulsions. Microscopical investigation showed a change in the skin, especially in the glandular structures. The hair follicles were chiefly diseased. In the first stages an increase of the cells lining the glands was noticed, which subsequently became occupied by new cells and pus. The cells of the cutis multiplied, and an enlargement of the papillae was observed. It is supposed that inflammatory action is set up by the excretion of the Bromide through the glandular structures.—*Wien Med. Woch* 49-1873.

Proceedings of Societies.

SUMMARY OF THE PROCEEDINGS OF THE ST. LOUIS MEDICO CHIRURGICAL SOCIETY,

FROM DECEMBER 22D. TO FEBRUARY 1ST., 1874.

(Reported for the Missouri Clinical Record.)

Dec. 22d, 1873, Dr. E. Montgomery being in the chair and Dr. N. B. Carson, Secretary, the following cases were presented:

Dr. Engleman, Jr. exhibited to the Society a mass of fat together with a glutinous substance. The latter supposed to be a portion of the muscular coat of the intestines, passed with the feces of a young man of twenty-eight years of age, who had been afflicted with a diarrhœa attended with much abdominal pain and of more than a year's duration. Upon palpation of the abdomen a small tumor was discovered to the left of the umbilicus. When this was first seen no diagnosis had been made. After taking charge of the case the doctor gave a full dose of oil to clear out the intestinal tract, and followed the administration of the oil with bismuth, etc., etc. A discussion then ensued as to the nature of the case, various opinions being expressed; some of the gentlemen present holding that the case was one of chronic colitis, others that it was a disease of the pancreas. At a subsequent meeting, in reply to Dr. Montgomery, (Jan. 26th, 1874), Dr. Engelman stated that he had made a diagnosis of disease of the pancreas, probably complicated with an affection of the liver and small intestine. Acting upon this view he had given pancreatine and nitro-muriatic acid, attended with a decided improvement of the patient's condition.

Dr. A. P. Lankford related the case of a man aged twenty-six, who had several years ago well marked constitutional syphilis. Two or three years after the appearance of the syphilitic eruption he had a somewhat stubborn attack of aphasia, from which he recovered while under a mercurial anti-syphilitic course. From this time he had experienced no trouble until about three weeks since, when he suddenly lost the power of deglutition, this being attended by occasional flashes of hot and cold sensations passing over the entire surface of the body. He said his throat felt very stiff, and as at the same time he suffered from intense thirst, he attempted to swallow some water but utterly failed, some of the drops passing into his windpipe and nearly strangling him. The family becoming alarmed, hastily summoned their medical attendant, who in turn called the doctor in consultation twenty-four hours after the beginning of the attack. He found the patient with a dry skin and mouth, anxious and apprehensive countenance, and tormented with thirst; but he was able to speak distinctly and correctly. He said that his right side felt hot, and when blind-folded he could not distinguish hot from cold water with his right hand. The grasp of that hand was weak, and there was dropping of the right eyelid. During the first twenty-four hours there was no inflammation about the mouth or fauces. Fluids; beef-tea, water and milk were immediately injected into the stomach through a large catheter, (largest English gum) and this was subsequently repeated two or three times daily for eight days, when he so far recovered his power of deglutition as to be able to swallow nutritious slops. During these eight days mercury was administered by means of the vapor bath, and iodide of potassium given in the same manner as the nourishment, per catheter. There was no marked improvement for five days, when his symptoms began to grow rapidly better. The perverted sensation had not entirely left him, (at time of reporting). The doctor attributed the brain lesions, upon which these symptoms depended, to syphilitic deposit. Dr. Montgomery inquired whether the symptoms might not be due to extra vassation of blood. He thought not, but, granting it, he would still contend that the syphilis had determined the accident, such a thing was possible.

Dr. Hodgen asked Dr. Lankford if the sense of taste was affected, and the doctor replied that he could tell bitter from sweet, but he thought this due to the lingual branch of the fifth pair, the evidence being that the glosso-pharyngeal, which supplies the sense of taste to the posterior part of the tongue, was paralyzed. In regard to the mode of administering the nourishment, etc., Dr. Pallen thought that Dr. Lankford should have used a gum elastic tube as a syphon instead of the catheter, and that it should have been introduced through the nose rather than through the mouth. Dr. Langford thought not, that this would be converting a very simple little performance into a difficult one. He had used the catheter with entire success and great ease, and nothing could be more simple and effective.

Jan. 12th., Dr. E. Montgomery in the chair, Dr. Carson, Secretary. After some routine business, Dr. Prewitt presented a remarkable specimen, illustrating a spontaneous cure of an aneurism of the aorta. The patient had been admitted to the hospital for another disease, and dying, a post mortem was held, when this discovery was made. This specimen proved conclusively that aneurism of this artery at its arch is susceptible of spontaneous cure.

Jan. 26th, Dr. Carson exhibited a specimen of a double femoral aneurism of the right and left limbs, occuring in a subject of 40 years of age at time of death. The aneurism of the right side was as large as a man's head, that of the left of about the dimensions of a very large orange. There had been a feeble effort at deposition of lamina in the larger one but scareely any in the smaller. Unsatisfactory history. Had been under treatment two or three months just preceding death. The treatment mainly relied on was pressure of the abdominal aorta with tourniquet. A general discussion followed upon the relative merits of the various plans of treatment. Dr. Montgomery described several cases he had recently observed, which very much resembled lead poisoning; but the patients had not been exposed to the influence of lead. The patients had recovered under a supporting plan of treatment.

Editorial.

"FEES."

When the great panic of last fall, which almost entirely suspended commercial intercourse and paralyzed every department of industry, had reached its acme, the Faculty of the Missouri Medical College announced a reduction of fees for students from $105 to $60 for the session of 1873-'74. This action was taken on the 2d of October, and

the reason was given with the sudden announcement. In the annual circular for 1873–'74 no change of fees had been made, and after that announcement had been printed no change had been contemplated, until that great financial storm threatened to whirl into a common ruin the entire business and commercial enterprise of the land, it seemed to the Faculty a business necessity, and they acted accordingly. They acted promptly in the interests of a school which they had been trying for several years to make one of the first in the country. Now this course gave rise to much adverse comment from members of the profession in this city, and in certain instances to gross misrepresentations as to the motives of the Faculty.

The Dean of the College had been recognized as a champion of "high fees" in the American Medical Association and elsewhere, as long as there seemed to be *any reasonable probabilities that those Western schools which first reduced the fees could be brought back to the old standard*, and during this time he repeatedly expressed himself in very positive language against reduction. Language to this effect used by him in his address to the Missouri State Medical Association was reprinted after the announcement of reduced fees last fall, by some enemy of the school, and industriously circulated amongst students. The real object of this was to prejudice students against the college, and the effect with the uninformed and unthinking so far as Prof. Moore was individually concerned, was to leave the impression that he was either very unprincipled or very weak. If we thought Prof. Moore needed any vindication, we might make the reply for him that another eminent man did under a similar provocation, viz.: "Wise men sometimes change their opinions, fools never."

The *trick* of publishing the Professor's remarks as above alluded to, putting a false coloring upon his motives as it did under the circumstances, was, to use the mildest expression, too small a business for men standing high in the profession. It is just to Dr. Moore to say that he is now, as he always has been, in favor of the Western medical colleges keeping up the fee to the old standard, as above intimated; he has advocated this policy—for it is a question of policy and not of principle—we might almost say, in season and out of season. He has urged upon the State and American Medical Associations the propriety of adopting some measure that would induce the schools to sustain the old fee system; and in 1869 the National Association at the meeting in New Orleans "resolved that the adoption of a uniform rate of collegiate fees—$120 being the minimum—be accepted as the sentiment and desire of the Association."

The Faculty of the Missouri Medical College wishing to carry out the above recommendation, at once made the proposition to the St. Louis Medical College to co-operate with them in increasing the fee to one hundred and twenty dollars; but their proposition was declined, and they were unable to make any change in this direction—(see announcement for the term 1869–'70). Thus it will be seen that Prof. Moore individually and as the representative of his college, advocated "high fees" after all hope of bringing the schools, which are the immediate rivals of his own, up to the proposed standard. So much for the record of Prof. Moore and his school upon this question.

We wish to record a few facts upon the merits of this much agitated problem of what fees a school should exact from a medical student for a given course of instruction. If we may be pardoned for using a commercial simile, it is a question of supply and demand. Let us see if this is true. According to our recollection the Medical Department of the University of Michigan, at Ann Arbor, led in the reduction of fees, and at one leap announced the fee for tuition at $10, and did not have to wait long to see every lecture room filled with students. Simultaneously the schools of Chicago, Cincinnati, Louisville and St. Louis, but especially the first three, saw with sad hearts their ranks growing thinner. They saw students from districts which they had been accustomed to consider their own territory, going away to a village to study medicine; and, forthwith they had to confront the question, whether they would "lecture to empty benches" or close up their institutions; and then it was that Chicago, Cincinnati and Louisville reduced the fees, and their pupils returned to them with an increased representation.

From then until now, the leading schools of these cities have steadily increased their patronage, and prospered in every substantial particular. In vain did the American Medical Association try to induce them under penalty of the displeasure of that august body, (rightly esteemed the only representative and the most influential medical organization on this continent). They grew in power until the "cheap schools" as they are called, found themselves in a majority in this Association in the year 1871, and not only have their classes increased in size, but the leading schools of the cities named have greatly increased their facilities for teaching. Students now have better opportunities in those cities than when the fees were $105, and the requirements for graduation just as thoroughly test the student's qualifications, now as then; therefore, the standard of excellence has not been lowered.

It is thoroughness in teaching and strict examinations that "elevates the standard," and not what the student pays out in dollars and cents. It is true that there are some people who think a man is "high-toned" in proportion to the amount of his current expenses, but it is still a question whether

the good opinion of such people is worth what it costs. We see then that our neighboring cities, one after another, have been forced by the patronage of students to adopt low fees. St. Louis is now the only city west of the Allegheny Mountains that has kept up the fees; the fees in Chicago, Cincinnati and Louisville being from forty to fifty dollars. Is it not plain that the St. Louis schools have pursued an erroneous policy? St. Louis is now the largest city in the West, and certainly has more clinical material. Her schools have well arranged and commodious buildings, etc., and we would naturally expect that she would have the largest medical classes in the West, and yet we are sorry to confess that this is far from being the case. *By keeping up the fees she has deterred hundreds of young men from attending her schools, but not one perhaps from studying medicine.*

We contend that our facilities are superior, and yet, negatively offer them an inducement equal to about fifty-four dollars to go, for instance, to Chicago; and in this same way have hundreds of poor but worthy young men been forced to go to the schools in villages about the country. They would of course prefer the clinical advantages of the metropolis of the West, to the limited opportunities for practical instruction supplied by a town of eight or nine thousand inhabitants, if we did not keep them away by adhering to our high rates for tuition. Surely this is "lowering the standard." In view of such considerations and many more which in the limits of this article will not admit of mention, we assert that it becomes a necessity for us to reduce our fees if we wish to compete satisfactorily with other Western Medical Colleges. We cannot, therefore, view any one as a wise friend of St. Louis schools who urges that we adhere to the suicidal policy of charging from fifty-five to sixty dollars more than the cities which are our real rivals, and situated within a few miles travel of us.

Give every man who proposes to enter the profession the best facilities for qualifying himself, and then, indeed, will we be acting for the best interests of that profession.

THE "RECORD."

The aim and objects of the "Record" have been so fully presented in our prospectus, that we have thought it unnecessary to reiterate them in the form of a salutatory, but it may not be amiss to advert, in a few brief words, to the general plan upon which this journal is to be conducted. It is our intention to make the RECORD an active, energetic medical *newspaper*, abreast with the spirit of the age in which we live; and just in proportion to the encouragement received do we propose to augment the usefulness and interest of this journal. Moreover, we think that a metropolis of this size is able, if the proper patronage is extended, to sustain a weekly medical paper, and we confess it to be our ambition, at an early date as possible, to merge our monthly into a weekly. As it is our desire not only to give our readers a periodical replete with matters of scientific and practical interest, but also a spicy, readable and interesting journal, we therefore invite, together with original communications, clinical reports, etc., articles for our department of "Miscellaneous Notes," in the shape of queries, correspondence and other subjects likely to be of everyday interest to the profession.

Book Notices and Reviews.

THE GERMAN PHARMACOPŒIA—Translated by C. L. Lochman. Philadelphia; David D. Elder & Co. (For sale by Gray, Baker & Co., St. Louis.)

There being many German physicians and pharmaceutists among us, who, in leaving the Fatherland, find it impossible to leave behind them their preference for the tried and familiar medicinal preparations and pharmaceutical methods of their native country, the publishers of the American edition of this work have shown a commendable enterprise in giving us an English translation of their authoritative standard.

This volume, in a measure, meets a want which can be properly provided for only by the adoption of a "Universal Pharmacopœia;" and, as yearly we grow more cosmopolitan, will the demand for such a work become more imperative. Let us bear in mind that the volume before us is an important step in the right direction, as it takes the place of several pharmacopœias heretofore in use in the various German States.

On this subject we cannot do better than quote from Mr. Lochman's "introduction:"

"The translator hopes that the spirit of the age which has brought about the formation of common pharmacopœias for whole empires, such as the British and German, may at no distant day induce the enlightened nations of the earth to adopt a Universal Pharmacopœcia upon a basis broad enough to suit all nationalities, and to accept a uniform system of weights and measures, so as to bring about unity and harmony of the present incongruous systems of weights and measures, terminology, and medicines of various strength which bear similar names, all of which are liable to lead to serious errors."

In this work *measures* of *capacity* are not used; in all the formulae the quantity of each article is given in *parts* by *weight*. The arrangement is alphabetical, but unlike the United States Pharmacopœia, there is no division into a Materia Medica list, and a list of Preparations.

Another important difference which we at once recognize is that in the *naming* of substances. For instance, where the German Pharmacopœia says Fructus Cardamomi, Herba Lobeliæ, Radix Gentianæ, Rhizoma Zingiberis, Semen Cydoniæ; ours says, Cardamomum, Lobelia, Gentiana, Zingiber, Cydonium.

In this their system of nomenclature is not so

simple as ours, but it is certainly instructive, and it is also particularly advantageous to the student. In a Universal Pharmacopœia the following names we think would give place to ours, viz: Chininum, Chininum Sulfuricum, Coccionella, Cortex Chinæ Calisayae and Radix Liquiritiæ. In our new Pharmacopœia the class Chartæ occurs for the first time; a corresponding class occurs in the German. That very convenient class of preparations but which is so much abused of late, viz: Fluid Extracts, is conspicuously absent in the German.

The absence of any officinal elixir in our standard authority has caused much confusion, perplexity and annoyance to druggists and physicians of late; the German leads ours in this respect, as several formulae are given which would produce admirable adjuvants.

The German mode of preparing the officinal aquae is considered superior to ours, although not so convenient; ours being prepared by rubbing the oil (essential) with carbonate of magnesia and filtering with water, theirs by adding the herb to water and distilling.

The oleosascharates are peculiarly German, prepared by adding *one drop* of any essential oil to *two grammes* (thirty grains) of pure powdered sugar.

Extractum Carnis Liebig, of the value of which almost every physician in our own country can give testimony, is officinal. The use of unguentum opthalmicum and aqua phagedaenica are indicated by the name, a system of nomenclature which has always been avoided by us.

To point out the differences in detail between the German Pharmacopœia and our own, does not come within the scope of this review; for these our readers are referred to the books themselves; they are both characteristic, and show in no small degree the channels into which the two nationalities run. The comprehensiveness of a book is generally shown by its index, and its usefulness and practicability depend much on this. The *indices* of this book make it particularly valuable to American druggists who are liable at any time to be called on to prepare prescriptions written by German physicians; the three *indices* giving respectively the English, Latin and German names of the different drugs and their preparations.

We cannot close this article without calling attention to TABLE A. In it are enumerated all of the most potent officinal preparations and the maximum quantity of each to be given at a single dose, and during a period of twenty-four hours. To exemplify: Grammes.

	One dose.	Aggregate for one day.
Acidum Arseniosum.....	0.005	0.01
Opium.....	0.15	0.5
Strychnia.....	0.01	0.03

The physician is not allowed to deviate from these doses without adding the exclamation point, thus, (!) after the quantity. The adoption of some such a mark as this to be understood by physicians and druggists, is a subject worthy our consideration; the absence of the mark when an exceptionally large dose was ordered would leave the druggist to infer that something was wrong with the prescription, and by a well-framed excuse for delay could allow himself time to see the physician before preparing it. J. M. G.

Miscellaneous Notes.

MISSOURI MEDICAL COLLEGE.—The commencement exercises of this institution occurred on March 11th, at the Temple, Prof. Bauduy delivering the valedictory address. The following gentlemen received the title of Doctor of Medicine: E. B. Arthur and S. F. Arthur, Rolla, Mo.; J. P. Altone, Paducah, Ill.; G. W. Butler, Palestine, Texas; W. R. Boal, St. Charles, Mo.; M. S. Blazer, Inland, Ia.; J. L. Bauer, St. Louis; G. F. Barr, Quincy, Ill.; Curtis Brown, Cartersville, Ill.; Lain Carthrae, Aullville, Mo.; J. A. Case, Adair, Ill.; D. M. Carter, St. Charles; A. H. Choeworth, Chain of Rocks, Mo.; T. F. Donegan, St. Louis; Joseph Diggs, St. Peters, Mo.; Green Downing, Missouri; J. H. Faucett, Indiana; Gustavus Gussow, St. Charles; T. B. Gunn, Memphis, Mo.; McCausland N. Heald, Kirkwood; Eugene Howard, St. Louis; T. E. Holland, Edgeton, Mo.; E. A. Jones, St. Charles; F. D. Johns, St. Charles; Fred Kaufman, Germany; W. N. Moore, Memphis, Tenn.; Robt McWilliam, Memphis, Tenn.; E. Miller, Liberty, Mo.; Charles J. Mullen, St. Louif; Frank A. Nevers, New Brunswick; C. E. Neubert, St. Louis; J. E. Pringle, Rolla; A. N. Perkins, Illinois; E. P. Poindevter, Illinois; A. C. Robinson, St. Louis; Henry Rector, Hot Springs, Arkansas; A. B. Scott, Monroe county, Missouri; J. T. Surbaugh, Saline county, Missouri; B. F. Shipley, Marshall, Arkansas; Frederick Tunstall, St. Louis; William Titsworth, Illinois; E. A. Vogt, St. Louis.

The Ad Eundem degree was conferred on S. F. Sanders, M. D.; John S. Lockwood, M. D.; and H. F. Adams, M. D., of Illinois; E. B. Bateman, M. D., of California; J. P. Kingsley, M. D., R. B Garnett, M. D., and C. G. Davis, M. D., of Missouri, and M. A. Townsend, M. D. of Ohio.

The class prizes were next distributed, as follows: For chemistry—First prize to C. J. Mullen, second to M. S. Blazer, and third to J. T. Surbaugh. For nervous diseases—First to Henry Rector, and second to F. D. Johns. For clinic reports—First to E. H. Miller and second to G. Downing.

Prof. Bauduy was then introduced and delivered a valedictory address. He pleasantly and profitably entertained his hearers for over half an hour, his remarks being general as well as specific at times. He exorted the graduates to have no ordinary determination in entering upon their campaign, and to force themselves to the top of their profession. His address contained friendly premonitions, a review of the college trials and difficulties, advice about making matrimonial alliances, and also upon professional etiquette. He claimed that their college was one of the best on the continent, and had several advantages not possessed by any eastern college.

The professor was enthusiastically applauded and was presented with a boquet by some ladies in the audience. He was also presented by Dr. T. E. Holland, in behalf of his class, with a fine gold-headed cane. On motion of Dr. Never, a vote of thanks was tendered to the Dean. During the evening Herwig's band gave an excellent selection of music.

STATE MEDICAL ASSOCIATION.—The annual meeting of the Missouri Medical Association will convene in Sedalia, April 21st, 1874.

Original Lectures.

CLINICAL LECTURE

ON A CASE OF PERICARDITIS.

BY P. GERVAIS ROBINSON, M. D.

Prof. of Clinical Medicine and Principles of Diagnosis, Mo. Med. College.

GENTLEMEN:—I have to report that Augustine Korffer, the patient you saw with me on Friday last suffering from an attack of acute rheumatism, died this morning at ten o'clock. The proximate cause of death is so obscure as to render an autopsy necessary.

Let us recall somewhat the facts connected with the case. You will all remember that he has been for several weeks an inmate of the Hospital, and that he entered the institution for a tumefaction of the leg. On examination this tumefaction which was considerable, proved to be an hypertrophy of the skin, presenting all the characteristics of elephantiasis arabum. On physical exploration of the chest we found by auscultation, a soft, systolic murmur at the base of the heart and transmitted along the course of the *aorta*. It was therefore believed that a cardiac lesion existed, producing some slight obstruction to the escape of the blood in its exit from the left ventricle. The antecedent history of the case furnished us with an account of several attacks of acute rheumatism, which you have been taught is the most prolific source of valvular and other cardiac lesions, and which was a confirmation of the diagnostic indications derived from physical examination.

From time to time the patient complained of pain in the swollen leg, and coincidently the signs of inflammation presented themselves, such as redness and tenderness on pressure at the seat of pain, accompanied by a certain degree of constitutional febrile reaction. This recurrence of inflammatory action I told you was one of the features in the progress of elephantiasis, the hypertrophy being a result of inflammation commencing in the lymphatic vessels of the limb, extending to the connective tissue, producing proliferation of the connective tissue cells, and leading finally to condensation and induration of the several layers of the skin and the subcutaneous structures. We had in the case under consideration as ordinarily happens, interferences, through pressure, with the venous circulation and the return of blood from the periphery towards the central organ of circulation; in some cases the veins are quite obliterated, in all more or less obstructed, giving rise to varicosity of these vessels.

Under the internal administration of iodide of potassium, with the local application of iodine and bandaging, you saw the tumefaction diminish from day to day, while the general condition of the patient appeared to be satisfactory.

About ten days since he presented the ordinary features of acute rheumatism, such as swelling, redness and pain simultaneously or in rapid succession of the larger joints, such as the ankles, knees, wrists and elbows, with fever and sweating. The disease appeared to be progressing favorably under the administration of bicarbonate of potash and colchicum, and on Friday when you saw the patient for the last time, you will remember that the local signs of inflammation in the several joints had quite subsided, that fever was scarcely appreciable, and that the patient moved his limbs freely and apparently without pain. Standing at his bedside I reminded you of the frequency with which the rheumatic inflammation extended to the fibrous structures of the heart, that this constituted the chief danger of acute rheumatism, the irreparable injury done either to the internal membrane (endocardium), and its reduplications (valves), or to the surrounding serous sac, the pericardium. The patient you will remember sat up in bed while replying to our questions, and though not complaining, admitted, on being asked, that he suffered pain in the cardiac region.

Percussion showed no increased area of dullness, and auscultation failed in detecting any abnormal sound beside the endocardial murmur before noticed, and undoubtedly the evidence of the old injury from some previous rheumatic attack.

On Saturday 21st and Sunday 22d, at the morning visits the patient continued apparently in a satisfactory condition, with the exception that his appetite was poor and he could with difficulty be persuaded to take any nourishment. On Sunday, towards noon a change was observed in his state; he now began to show signs of embarrassment in respiration, coughing constantly, and expectorating freely a glairy mucus or serous sputum. He became profoundly and rapidly more and more depressed; his circulation rapidly and progressively enfeebled, and notwithstanding oft-repeated and liberal stimulation, he continued to sink from gradual cessation of the heart's action, with intellect clear and undisturbed up to the last moments of life, which terminated about 10:30 this morning.

We must confess that the termination of the case was unexpected, and that no indication of such an event was discovered by us at our examination on Friday. The patient who had apparently already convalesced from his rheumatic attack and was indeed well enough to be up and about the ward, collapsed as it were, and died with scarcely a warning. He has, therefore, died unseasonably, and we must discover a satisfactory cause for his death.

Autopsy, six and a half hours after death: Trunk still warm; extremities cold and rigid. Face, trunk and upper extremities slightly jaundiced. Integument of left leg and foot greatly

hypertrophied, of a livid hue, rugous and scaly. There is an old hernia in the right groin (inguinal), for which a truss had been worn.

Upon removing the calvarium we find considerable opacity, with thickening of the membranes over the greater portion of the superior surface of both anterior cerebral lobes, a slight excess of fluid exists between the arachnoid and pia mater, and decided turgescence of the veins. On section of the central substance the puncta vasculosa are extraordinarily prominent. Situated between the layers of the "falx cerebri" and reaching down into the inferior longitudinal sinus we find an ossiculum about one and a quarter inches long, three lines wide and two lines thick, rounded at its upper and pointed at its lower extremity; and so curved that its long axis corresponds with the direction of the sinuses which it somewhat obstructs. The pleura of the left side is firmly adherent in the axillary region, preventing the removal of the lung without great force. These adhesions are evidently the result of remote disease. Both lungs healthy, with no excess of fluid in the pleural cavities.

The pericardium is found to be *adherent* to the heart everywhere except about the base of the organ, at the origin of the blood vessels there is a considerable quantity of yellow, creamy, coagulated lymph seen lying upon the surface of the heart. The adhesions, evidently the result of a very recent inflammation, are easily broken up and on so doing we find the heart generally of a pale, yellowish color except on its posterior aspect where the coloration is deep reddish, and the surface much roughened.

The organ is seen to be somewhat larger than normal (weighing ———), and on cutting into it we find the walls, especially of the left ventricle, somewhat hypertrophied. A strong fibrinous clot lies in the pulmonary artery, requiring some effort to detach it, and so firm in consistency as to resist much force before being broken. Small vegetations, so called, are seen upon two of the semilunar folds of the aortic valve, sufficient to impair somewhat its function. The aorta is slightly dilated for about one inch from its origin. The folds of the mitral valve are much thickened and indurated, but no vegetations exist upon their free margins.

Microscopic examination of the muscular tissue of the heart shows the fibres to be in an advanced stage of fatty degeneration. Abdominal organs apparently in a healthy condition.

Now with the results of the *post mortem* examination before us, can we satisfactorily account for the death of the patient? I think we can. The fatal termination was, without doubt, due to the supervention of an acute pericarditis upon a heart primarily injured by old disease in its internal mechanism, and secondarily, in its walls by a subsequent fatty degeneration of the muscular tissues. The pericarditis itself was hardly sufficient to cause death by its interference with the contraction of a healthy heart. But when we take into consideration the loss of power which must have been sustained by the heart through degeneration of its muscles, together with the demand for increased action made by the obstruction at the aortic orifice (though small it seemed to be), we can readily appreciate the inability of the organ to overcome the additional restraint offered to its already weakened impulse, and that under this sudden incubus it gradually failed in its contractions until it ceased entirely to beat. The mode of death as shown by the symptoms in the last hours of life correspond with the pathological lesions found.

The pericarditis may be regarded then as the proximate, the fatty degeneration, as the remote cause of death.

Inflammation of the pericardium from whatever cause is, however, often accompanied, or followed by an effusion of serum within the sac, of such quantity as to fatally embarrass by its pressure the action of the heart, and thus become the immediate cause of death. I may cite the following case for your instruction:

George Nelson, an American by birth, aged 28, a laborer, was admitted into City Hospital ward 33, bed 188, on November 4, 1870. The history showed that he was taken suddenly about five months previous to his admission, with a pain in the region of the heart *caused, he said,* by *jumping* from a stock car. This pain was very acute and impeded his respiration.

The physician in attendance blistered him over the region of the heart with croton oil, which for a few days was followed by relief of the pain; but this returned at four different points: the first located high upon the left side, the second about the left nipple, the third about two inches below, the fourth still a little lower down. Counter irritation was again made with croton oil, but this time on the back, which gave some relief. He has been confined to his bed ever since. Patient states that he had had no fever, and experienced no pain, except that in the breast, which was increased on exercise, but abated while he remained quiet; it was likewise more acute when he reclined upon his right side. About fifteen days ago, according to his statement, his ankles began to swell and continued swollen for about ten days. His wrists were affected in a similar manner. When the swelling had subsided he came to the City Hospital.

November 5. Is very pale, a general anæmic appearance of the cutaneous and mucous surfaces. Tongue slightly covered with a light colored coating. Complains of constant cardiac pain aggravated by lying on the right side.

The pulse is quick and irregular. Suffers from

time to time with palpitation and fainting feelings. Has a slight hacking cough without expectoration. Bowels regular. Micturates frequently. Urine of a dark red color. Appetite good. Inspection shows some bulging of the thorax in the cardiac region, while palpation gives no shock. Percussion shows the area of cardiac dullness much increased and pyramidal in its boundaries. Considerable pain is produced by percussion and simple pressure in this region. On auscultation, the sounds of the heart are distant and scarcely audible, while the rythm is completely destroyed. A faint murmur is heard with the first sound apparently most intense about the base.

The diagnosis was endocarditis and pericarditis with effusion, and in the absence of the rheumatic diathesis, and from the declaration of the patient that he had received in his jump from the car, a blow upon the left breast, it was concluded that the cardiac inflammation was the result of direct violence.

Death occurred on the 21st of November, and a *post mortem* was made four hours after with the following results:

The pericardium was firmly adherent to the diaphragm and pleura; the pericardial sac itself was distended to its utmost capacity and filled with a transparent serous fluid to the amount of one quart. The heart was of normal size, while the walls of the left ventricle were somewhat hypertrophied, with great *paleness* of the *fibres*. There existed extensive fibrinous deposits upon the semilunar valves of the aorta, as also upon the folds of the mitral valve, causing shrinking and consequent insufficiency of both these structures. The internal coat of the aorta (ascending portion), was of a scarlet redness.

The lower lobe of the left lung was consolidated, apparently from interstitial plastic deposit, a sort of hepatization of a dark (almost) black reddish color. Melanotic.

In this case, the *post mortem* clearly demonstrated that the cause of the fatal termination was the excessive accumulation of fluid in the pericardial sac, rendering it impossible for the heart to carry on the circulation. No microscopic examination was made of the muscular tissue of the heart walls, but it was more than likely from their well-marked paleness that fatty degeneration had already taken place from the same cause or causes.

Some of you have doubtless seen the pattien who was brought to the Hospital, (St. John's) a day or two since, on account of a recent and dangerous wound in the left breast. He was stabbed with a rather blunt pointed shoemaker's knife just below the left nipple, his adversary standing on his left side and somewhat behind him. The knife entered below the sixth rib and ranged obliquely upwards and inwards, so as to bruise, if not penetrate, the pericardium at its lowest part. There has been developed since the accident, as shown by auscultation, a most distinct and well marked double, or to-and-fro friction murmur, which is the most certain sign of percarditis. The sound of the inflamed and roughened pericardium was so intense that it could readily be heard by the ear at a distance of two or three inches from actual contact with the thorax.

The friction sound maintaining its intensity for twenty-four or thirty-six hours, has gradually diminished until now we can perceive no abnormal sound whatever, and percussion shows no increase in the area of cardiac dullness. The inflammation was accompanied by much pain and febrile reaction, but has gradually subsided and come to a favorable termination under the judicious management of my colleague, Prof. A. P. Lankford. The treatment was exclusively by opiates.

You have here, then, three cases of pericarditis, owing their origin to, and illustrating the possibility of separate and distinct causes. In the first, to rheumatism, in the second to a simple blow upon the chest, and in the third a penetrating wound.

In the two last cases cited the diagnosis was sufficiently easy, since we had characteristic physical signs present to guide us to a certain conclusion; in the one the double friction or rubbing sound, and in the other the extensive dullness on percussion and the peculiar form of the region of dullness.

Now, I would insist here that the recognition of pericarditis must be made chiefly by physical explorations, since the general symptoms accompanying inflammation of the surrounding membrane of the heart possess no peculiarity in themselves, present no distinctive features which shall enable us without the aid of physical exploration, to say that we have pericarditis to deal with, or to differentiate between this and inflammation of the endocardium. In either affection we may have a rapid and irregular pulse. In either case we have anxiety and distress depicted upon the countenance. There is equally in either case disposition to syncope and more or less dyspnœa with pain in the præcordia.

Of all the symptoms pain is perhaps the most constant, and therefore the most reliable, but the fact that even this symptom may be wanting is illustrated in our first case, when you will remember that the patient, though suffering from an extensive adhesive inflammation of the pericardium, *complained* of no pain in the region of the heart and only admitted (and not very decidedly) its existence when directly questioned. We had, therefore, in that case, only a suspicion of pericarditis, based upon a very moderate degree of pain and the history of several attacks of rheumatism,

the physical sign discovered a systolie endocardial murmur, pointing to an old valvular lesion.

Pericarditis may escape detection then from the paucity of physical signs, and from the absence of general symptoms, or when these exist, from their not possessing any exclusive properties. Pericarditis may, moreover, be confounded with eudocarditis, from the pathological fact which demonstrates the frequent co-existence of the two diseases and their liability of occurence from the same cause or causes.

Some of you, who are beginners in the study of medicine, may ask why we could not have said, during our examination on last Friday of the patient whose post mortem we have just made before you, with certainty that he was suffering from pericarditis, or that there was adhesion already of the pericardium, or that the case was complicated with fatty degeneraton of the heart's muscles.

I would remind such of you, that the most certain *physical* sign of inflammation of the pericardium, viz: the friction sound, is often as in inflammation of the pleura, to be heard only for a short time during the commencement of the attack, and is soon lost from one of two causes. 1st, the more or less perfect adhesion of the opposing surfaces and their consequent immobility; and 2nd, the distention of the sac from effusion and the consequent separation of the visceral and parietal layers of the membrane. Supposing, then, that at our examination on Friday, adhesion had already taken place, it does not necessarily follow that we should have recognized such a condition of the parts, for though in your books you may find laid down certain physical signs indicating an adherance of the pericardium, such as a sharp tumbling motion of the heart, extinction of the second sound drawing up and "recession of the apex beat," and depression of the præcordial region, it must be remembered that these signs refer rather to a chronic than an acute or recent condition, and indeed are only present when the adhesions have persisted for some time not only between the heart and pericardium, but likewise between the external surface of the pericardium and the surrounding tissues, causing subsequent dilatation and hypertrophy of the heart.

We have expressed the opinion that in the case under consideration, fatty degeneration of the heart walls was without doubt the chief cause of the fatal termination. This condition of the organ is by no means infrequently a direct cause of death, more commonly an indirect. Unfortunately our knowledge of its clinical features has not kept pace with what has been discovered of its morbid anatomy. In its diagnosis we are often reduced to mere conjecture, and its existence is rather to be inferred in many cases of dilatation of the heart where no other cause can be discovered for such a condition of the heart walls.

Its symptoms are simply those of enfeebled heart's action, and the conjecture may be strengthened by the existence of fatty degeneration in some other part or organ, especially as evinced by development of the arcus senilis.

The pulse is in some cases irregular, weak and rapid, in others remarkably and persistently slow. In the case of an old lady whom I recently saw in consultation with my esteemed friend, Professor Boisliniere, and where we arrived at the diagnosis mainly by a process of exclusion, this slowness of the pulse was a characteristic feature. The number of beats ranged constantly between 28 and 32 to the minute. She suffered from oft recurring paroxysms of faintness with partial loss of consciousness, and it was observed that each such paroxysm was immediately preceded by a sudden change in the rate and force of the cardiac contraction, so that the pulse would from thirty per minute rise instantly to 120, and at the same time become small and feeble, the duration of this change being from two to three or four minutes. This tendency to faintness is a common symptom in such cases and is due to an imperfect supply of blood to the brain. in extreme cases of fatty degeneration, the walls of the heart become exceedingly soft and friable, and undue or extra exertion puts an end to life suddenly by rupture. Such a case we had in the City Hospital several years ago in a patient who had entered on account of some obscure cardiac trouble; having risen from his bed and sat upon a chair he almost immediately fell dead upon the floor. An autopsy discovered the pericardium distended with blood, which came from a rent in the left ventricle large enough to admit ten fingers. The microscope showed advanced and extensive fatty metamorphosis of the heart's walls.

Clinical Reports.

PRACTICE OF MEDICINE.

CASE OF EPILEPTIC DEMENTIA—PATHOLOGICAL CONDITIONS.

BY WM. B. HAZARD, M. D.,
Adjunct Professor of Psychological Medicine and Diseases Nervous System, Mo Medical College.

Catherine K., aged 48 (?), German, unmarried. No trustworthy history. Had been in alms houses, and asylums, for many years.

Epileptic attacks very frequent and severe, not appreciably modified by medical treatment. At intervals of one or two months had these attacks in rapid succession for two or three days at a time, *status epilipticus*, comatose and apparently at the point of death.

Mental faculties impaired to the degree of almost absolute dementia. Left arm completely paralyzed and rigidly contracted in a semi-flexed

position. Gait tottering and feeble. Subject to frequent falls. Until five weeks before death appetite and nutrition continued remarkably good. Had a habit of eating straws, bits of cloth, etc., when not closely watched.

Five weeks before death she had a long succession of epileptic fits, and when she returned to her ordinary condition, her health did not improve as it usually did after similar attacks; she kept her bed, and although the appetite was very good, emaciated rapidly. There was neither diarrhœa nor cough. The paralyzed member did not partake of the general emaciation.

A notable rise in temperature and increased frequency of pulse was observed every evening. The force of the heart's action progressively diminished; a small bed-sore formed over the sacrum, and death quietly took place on the 10th of December, 1873.

Sectio cadaveris twenty-four hours after death. *Rigor mortis* well marked.

Emaciation extreme, with the exception of the left upper extremity. Numerous cicatrices on head and face (following cuts from falls). Head, skull—diploic tissue double the normal thickness and full of fluid blood. All the membranes adherent at vertex, *i. e.* arachnoid strongly adherent to both dura mater and pia mater over a space an inch in diameter of each cerebral hemisphere. Turbid serum to the amount of six fluid ounces (estimated) occupied the sac of the arachnoid. This membrane was opaque in scattered patches, occupying, in the aggregate, about one-half of its extent covering the hemispheres. The whole mass of the hemispheres was softened, so much so that no microscopic examination could be made of the minute structure.

Heart normal. Blood loosely coagulated in the right cardiac cavities and larger vessels.

Lungs normal. Liver tissues apparently normal, a few strong bands of adhesion between left lobe and diaphragm.

Spleen supra-renal capsules and kidneys normal; stomach small and contracted; walls more than double the normal thickness and very easily torn by tension. The entire cavity was occupied by a mass of straw, rags, etc. This mass was two inches in diameter at the larger extremity, four and one-half inches in length, fusiform, narrowing to a point, and bright green in color; consistency like a hard wound ball of cotton; intestines nearly empty; some food, unchanged, apparently, by digestive process, in the duodenum and colon.

Uterus nulliparous, external os uteri patulous and mucous membrane eroded. Canal of cervix uteri occupied by a tough mass of muco-pus. Ovaries atrophied.

Query: Was the cause of death chronic meningitis and cerebritis, or inanition from interference with digestion from the long continued presence of a foreign body in the stomach? Or may we content ourselves with the convenient word exhaustion, to express it?

2430 Chestnut street.

DIPTHERIA.—Dr. Lewis J. Smith gives iron, quinine, and alcoholic stimulants in this disease, and finds a mixture of carbolic acid, persulphate of iron and glycerine, the best local application where pseudo-membranes exist.

OTOLOGY.

CASE OF CEREBRAL ABSCESS DUE TO CARIES OF THE TEMPORAL BONE.

BY CHAS. A. TODD, M.D.

Adj. Prof. of Surgery, and Lecturer on Diseases of the Ear and Throat, Missouri Medical College.

At the regular meeting, April 13th, of the St. Louis Medico-Chirurgical Society, I presented the petrous portion of a temporal bone, exhibiting a series of interesting pathological changes, which had finally given rise to encephalitis and abscess of the brain. The case occurred in the practice of Dr. Otto A. Wall, who furnished me with the following condensed history:

Master Y——, aged 11 years. In his first year had the measles, and ever since more or less discharge from the left ear. Feb. 1st complained of headache and fever, which soon confined him to bed. Up to this date had been attending school as usual, his parents not perceiving at any time that he was ailing. Saw the case for the first time Feb. 24th; found the patient lying on his left side putting his hand up to the left ear and crying: "my ear, my ear." Beyond this cry of pain, he gave no signs of consciousness, and answered questions only on being roused. There was considerable discharge of purulent matter from the left ear.

March 6th, patient comatose and motionless; two days after, slight convulsive twitching.

March 8th, delirium, patient repeating his mental arithmetic; not much movement of body; pupil smoderately dilated and not responsive to light.

March 28th, in a stupor, though he could be still aroused. In this condition he remained until his death, which took place quietly, March 31st. During this illness there was no vomiting, but an occasional flow of purulent matter from the nostril.

April 1st Dr Wall invited me to make with him the post mortem. We found these conditions: No external appearance of disease, but a purulent discharge from the left ear. Pia mater much congested. Considerable serous fluid escaped upon removing the brain, but there was no exudation visible upon its surface. Middle lobe of left hemisphere contained an abscess, holding about five ounces of fœtid, greenish pus, the consistency of cream. This abscess had distinct walls and the overlying brain tissue was firm. Its floor was much thinned, so as to quiver on touch and was eroded at a spot corresponding to the surface of the petrous portion, just outside the eminence of the superior semicircular canal and over the mastoid cells. The dura mater in this region was thickened, some congested, and exhibited an opening about the size of a large pin head. Removing that portion of the dura mater, which was not extensively adherent, we found a perforation of the bone opposite that in the membrane, of an oval shape, and measuring ⅜ inch in its long diameter. Venous sinuses of the dura mater in normal state.

Cutting out the petrous portion, we found it notably increased in weight, and very vascular. The membrana tympani and ossicles were absent. The whole cavity of the tympanum was lined with fungous granulations, that extended into the mastoid portion. Both fenestra ovalis and rotunda were completely plugged with organized exudation. A probe passed readily per external meatus and the opening in petrous portion above described, into the cranial cavity, showing that the contents

of the cerebral abscess could escape by the external meatus. The whole bone in the mastoid region was greatly hypertrophied, the mastoid cells being obliterated, and the edges of the perforation thickened and rounded. The osseous wall of the lateral venous sinus was also much thickened. Further examination of the body was not allowed by the relatives.

Encephalitis, which of course must precede the formation of abscess of the brain, is caused most frequently by mechanical injury to the encephalon, for instance, according to Niemeyer:

1st. Injuries of direct traumatic nature following upon blows and shocks of similar nature, including also effects of apoplectic effusions.

2d. Irritation set up by presence of tumors and necrosed tissues.

3d. Caries of the cranial bones, but especially of the temporal.

This last is the most common cause of all. In Reynold's System of Medicine it is stated that out of 76 recorded cases of cerebral abscess, 28 were due to disease of the structures contained in the temporal bone, which in the greatest number had ended in caries and so implicated the brain.

Abscesses may occur from these causes in the cerebrum or cerebellum. They are usually solitary, and vary in size from the bigness of a bean up to that of the fist, or may be even larger. When these abscesses form slowly they may become encapsuled and their contents variously metamorphosed, so as to form serous cysts, or, degenerating, masses of cheesy, or calcareous matter. The well known fact that considerable portions of brain substance may be destroyed without causing any permanent nervous derangement, prepares us for the statement that sometimes abscesses are found in this organ, that during life had not given cause for the slightest suspicion of their presence. The existence of such a lesion, however must be regarded as an ever impending peril, that slight causes may set in fatal movement.

In the case under consideration some points are of special interest. First of all, the condition of the brain shows that the inflammatory processes that had attacked it and pierced the meninges, finally to involve the brain itself, were very deliberate in their action. Months and years must have passed before the bone and soft tissues were thus destroyed. The hypertrophy of the bone and the thickened walls of the abscess are proofs of this slow and gradual process.

In this case we find that death was the lingering termination of a series of causes, operating over a period of ten years, and having their origin in an ordinary inflammation of the tympanum, consequent upon measles. Surely a lamentable sequence upon events that at the outset were not beyond control. The acute exanthemata frequently occasion otitis media, probably through extension of the faucial inflammation up by the eustachian tube. It is essential to examine the condition of the ears of patients recovering from scarlet fever, measles, erysipelas and the like eruptive diseases. But every aural surgeon can testify to the only too common neglect on this point.

The notion that suppurative inflammation of the ear will wear away in time, is a wide spread. Within the small cavity of the tympanum, are contained essential parts of the organ of hearing. It is besides, in the midst of such structures as the brain, sinuses of the dura mater, internal carotid, and internal jugular, having only lamellæ of bone of varying degrees of thinness interposed; these lamellæ themselves are penetrated by canals for the passage of nerves and small vessels. The wonder is why fatalities do not more frequently ensue upon otitis media through extension of the inflammation, absorption of pus, etc. At all events, to allow such a disease to take its course, is to surrender a sense, second only to that of sight, to irreparable damage, while the possibility of incurring such a penalty from the neglect as we find in the case here analyzed, is never to be forgotten. Some insurance companies in England refuse to insure those suffering from purulent discharge from the ear, in view of the constant danger of fatal complications.

While engaged upon this article, I have had another opportunity to examine a temporal bone that had become carious in the course of otitis media of three and a half months standing, which in the end excited a fatal meningitis. I had attended the case at the City Hospital for a few days, but the mischief had been already done. The petrous portion in this case was perforated in the tegmen tympani, consequently just anterior to the carious spot in case I. The dura mater was thickened and congested over the perforated bone, but not itself perforated.

GYNÆCOLOGY.

GYNÆCOLOGICAL CLINIC
OF PROF. PAPIN.

A CASE OF ELYTRORRHAPHY.

REPORTED BY JOSEPH L. BAUER, JR., M. D.

Before operating upon the patient the doctor called the attention of the class to the causes and results of a cystocele. He said, that cystocele was produced by the diminished resistance of the vaginal walls, and rarely by the bladder itself. Instances where it might occur without an abnormal condition of the vagina were given, but they are extremely rare. He admonished his students to operate early, as the collection of the urine which remains in the herniad portion, would undergo decomposition into free ammonia, producing a violent, acute cystitis.

The only relief for the cystocele was elytrorrhaphy, which he now proposed to perform.

Mrs. B., aged 40 years, born in Ireland, a married woman, and mother of seven children, entered the clinic November the 26th, 1873. Nothing could be gathered of her history that might throw any light upon her ailment; so she was placed in the usual position and Sim's speculum introduced. Examination showed a cystocele, rectocele, retroversion and a non-specific vaginitis. By proper astringents she was relieved of her vaginitis; the retroversion was cured by the persistent use of Hodge's pessary. At that time she was informed that an operation would be neccessry for her other lesions, and accordingly the patient appeared at the clinic on the 17th of April last for operation.

Assuming the regular position, the patient was placed under chloroform; Sim's speculum being introduced the anterior wall of the vagina was seized with a pair of forceps, and Leslie's curved scissors, (which is, by the way, the best instrument for the purpose in the market), used to make

a line of demarcation for the triangle. The whole space within the triangle was then entirely denuded and brought together by four silver wire sutures. The sides of the triangle measuring two and a quarter inches, the base two and three-quarter inches. There was very little hemorrhage, about a tablespoonful. Having introduced a tampon, the patient was placed in bed.

DERMATOLGY.

NOTES ON A CASE OF SYPHILITIC STRICTURE OF THE ŒSOPHAGUS, AND SOME UNUSUAL VARIETIES OF SKIN ERUPTIONS.

BY W. A. HARDAWAY, M. D.

SYPHILITIC STRICTURE OF THE ŒSOPHAGUS.

The unusual interest attaching to this case arises from the fact, that not over three recognized instances of Syphilitic Stricture of the Œsophagus have been reported, and not until as recently as 1860 was the probability of its occurrence fully established and demonstrated as a fact. The attention of the profession was first directed to this hitherto unobserved syphiltic manifestation by Mr. Jas. F. West, of Birmingham, in an account published in the Dublin *Quarterly Journal of Medical Science* for Feb., 1860. Mr. White has since met with another case, and Mr. Langston Parker, I believe, has likewise, observed one of a similar character. The following case I believe to have been one of œsophageal stricture, due to syphilitic empoisonment; but I have every reason to think the result of hereditary transmission. The patient, a girl aged thirteen, was brought to the Medical Clinic of Prof. Robinson, at St. John's Hospital, where I first saw her. There was no history of her having swallowed any caustics; there were no evidences of the cancerous or tubercular diatheris; there could not be found, upon the most careful scrutiny, any traces of a primary lesion, or of secondary eruptions; moreover, the age of the child, thirteen years, would preclude the idea of an acquired taint. The patient presented a very haggard and emaciated appearance, from the fact that the girl was literally *starving to death*, from her inability to swallow solid food, and at the same time suffered the most excruciating pangs of hunger. An examination revealed cicatrices in the pharynx, and perforation of the right palatal pillar; there also existed ulceration of the larynx, causing marked aphonia. The stricture was situated in the upper portion of the œsophagus, and immediately above itthe œsophageal canal was very much dilated, forming a pouch, where the food lodged in its downward passage, but to be rejected in a few minutes afterwards. At the date of her admission the constriction was only permeable by an ordinary uterine sound.

Before proceeding further in the history of the case, it is necessary to state here that the diagnosis was arrived at not only from the totality of the symptoms as presented by the patient, but from the fact that the mother, although denying that she had ever been contaminated, was suffering at the time from a syphilitic psoriasis of the palms of the hands. The age of the girl and the character of the lesions would forbid one entertaining the idea that the disease had been acquired by the patient. The first desideratum in the treatment was to relieve her craving for food, and accordingly she was ordered teaspoonful doses of beef tea every half hour. Her medical treatment consisted in the administration of the iodide of potassium with tonics, and the atomization of the affected parts with nitrate of silver. The patient steadily improved, and up to the time of the discontinuance of her visits to the clinic, had steadily gained flesh, and was enabled to partake of small quantities of solid food. Unfortunately, as is too often the case in dispensary practice, she has since been lost sight of, but I thought the case of sufficient interest to report as far as obserued.

TINEA KERION.

I. McC. aet. 9, was brought to the St. Louis Western Dispensary for treatment. Upon examination, I discovered upon the top of his head a bald place about the size of the palm of a child's hand. The patch was upraised above the surrounding scalp, and studded here and there with short broken hairs. The diseased area was very tender to the touch, and had everywhere a boggy feeling, presenting exactly the appearance of a subcutaneous abscess. Upon questioning the mother of the child as to the antecedent history, I found that the swelling, tenderness and falling of the hair had occurred very suddenly, she having observed it only a few days before the child was presented for treatment. The boy, moreover, had complained of being somewhat unwell, and according to her account had been the subject of a slight fever. Upon a more minute examination the prominent and upraised appearance was found to be due to a distention of the follicles. There was also present a sticky, glutinous secretion upon the surface of the patch. The glands of the neck were slightly swollen. I diagnosed the case to be one of Tinea Kerion. The treatment consisted in the administration of tonics internally, and the application locally of the ung. Wilsonii, followed by a carbolic acid lotion. Under this treatment the case made a rapid recovery, and the hair returned, after some time, as plentifully as before. This peculiar affection was originally described by Celsus, and with so much exactness that I may be pardoned for giving Mr. Wilson's rendering of the author: "Kerion is a genus of ulcer, so named by the Greeks from its resemblance to the honeycomb. One is whitish, and like a furuncle in shape, but larger and more painful. When it maturates it presents a number of foraminæ, through which exudes a glutinous and purulent humor; but it never suppurates thoroughly. When opened, it is found to contain more corrupt matter than a boil, and is also more deeply rooted. It is seldom met with elsewhere than amongst the hair." He likewise describes another variety which "is smaller, prominent, hard, broad, greenish, pale, and more ulcerated." But it suffices to quote his description of the first kind, as it more nearly corresponds with the case under consideration. Tinea Kerion is to be regarded as in some manner a modified tinea tensurans, and dependen like it upon parasitic influence. It is to be carefully differentiated from a subcutaneous abcess as the treatment by puncture would be of more injury than benefit. The principal points in the diagnosis, seem to be the sudden onset of the trouble, the falling out of the hair, the elevation of the patch, the open condition of the follicles, a sticky, glutinous secretion, and finally, the infrequency of suppuration, and the presence of a fungus. Dr. Tilburg Fox, from whose admirable treatise I have drawn, devotes a most excellent and lucid chapter to this rather rare affection.

PELIOSIS RHEUMATICA.

F. K. German, peddler by occupation. Patient, complained of pain in knees and ankles, had slight fever and expressed himself as feeling nauseated. Upon inspection, œdematous swelling about the ankles was noticed, and there was observed a plentiful eruption of petechiæ, which did not fade upon pressure. The man stated that he had been treated for the same trouble in Vienna, and was subject to these attacks. He was ordered to keep the horizontal posture, and to take ten drops of the fluid extract of ergot, together with the same quantity of the muriate tincture of iron, three times a day, and to apply wet cloths to the affected parts Saw him subsequently; found the pain and swelling considerably relieved. There were here and there fresh petechiæ and vibices; but the majority of the spots were fading into various hues of green, yellow, etc., presenting the appearance of an ordinary bruise. The patient had several relapses, and it was fully a month before he had entirely recovered. Peliosis, or purpura rheumatica has been thoroughly described by the Germans, but is unnoticed by English dermatologists. About two years ago I published in detail a similar case of this malady, at that time the first that had fallen under my notice. The more prominent symptoms of this affection are as follows: The person attacked generally feels some pain in the joints, followed by fever, and an eruption of bright red spots about the size of a flea-bite, first upon the lower limbs and afterwards in other situations. These spots, being due to extravasation of blood, do not disappear upon pressure, but undergo various changes of hue, as green, yellow, etc., when they are fading. There is considerable œdematous swelling about the joints, and on this account, taken in connection with the pain, may be readily mistaken for rheumatism. The duration of the disease is variable, and may last from ten or twelve days to several weeks. Persons once the subject of Peliosis Rheumatica, are apt to suffer from occasional relapses. It is said to attack by preference young persons, although in three cases that I have met with, one was that of a boy about sixteen, and the other two were of middle aged men. The treatment, is as prescribed above.

Extracts from Current Medical Literature.

WHAT CLASS OF CONSUMPTIVES OUGHT TO BE SENT TO THIS COUNTRY?—A REPORT TO THE COLORADO MEDICAL SOCIETY.

BY EUG. C. GEHRUNG, M. D.

MR. PRESIDENT:—We, the members of this society, owe it to our honor, to the reputation of the territory, to the physicians of the United States, and last but not least to the welfare of the suffering invalids, to draw a line of demarkation as to what class of consumptives ought to be sent here with the hope of being benefitted by the healthful influences of the climate of Colorado.

Consumption as well as tuberculosis, regardless of their cause, are diseases of mal-nutrition, whether they be inherited through a deficient sperm or germ cell, or dependant on deficient intra-uterine nutrition, or acquired by a life spent in insalubrious surroundings, either through want and poverty or through affluence, which so often brings with it over-indulgence and artificially created unhealthy surroundings. Or, by overtaxing, mental worry and excess of cares, conjointly with physical indolence.

If the aphorism of Liebig (?) be true: that "Life is the result of constant death," then I may safely add that the more rapidly death takes place the more perfect will be the resultant life. Does that rapid reproduction of tissues take place in the consumptive? I say no! In this condition of the system the repair is too slow to make up for the greater waste.

The healthy balance in the composition of the blood and consequently in the composition of the tissues themselves, is not maintained, and products of a lower grade will be formed, whose tendency is to still more pervert the blood. In this way cause and effect are reacting on each other, and life is prematurely extinguished. It is evident that an accelerated re-formation of tissue is the one great road to convalescence. The more rapidly the excreta are formed the greater will be the demand for the processes of rebuilding, of repair, which processes being normal, the more complete will be the rejuvenation of the tissues of the body. This points clearly to digestion and assimilation as the great means by which the invalid is to regain health and strength. Now in Colorado there is an increased waste of tissue. Therefore the invalid who comes to this climate has to meet a correspondingly increased demand for nutrition.

The functions of digestion and assimilation should be in a condition not only to fulfill perfectly their ordinary labors, but to respond promptly to the increased power, which will be demanded from them. And it is in this question that the answer must be sought, as to what class of consumptives can and what class can not expect to be benefited by coming to Colorado.

I would like here to mention *some* of the advantages of our territory.

The *mild climate*, as compared with that of other parts of the United States, on the same degree of latitude. The extremes of temperature, so common in the States, being met with here only exceptionally. The summers in Colorado are generally mild and cool, especially the nights, which enable the invalid to obtain always the rest so much needed for the restoration of his health. Our winter cannot be surpassed for beauty and mildness by that of any country of the same parallel.

The almost constant *dryness of the atmosphere*,

dependent on the sparsity of rains, the porous soil and the dry winds. It should also not be left unsaid that there is an almost complete absence of stagnant water here, which explains to a great degree the exceeding dryness of the air. All this encourages out-of-door exercise, both winter and summer. The dryness of the atmosphere encourages the action of the skin, and yet so rapid is evaporation that the perspiration is quite imperceptible, thereby exposing the patient less to the danger of taking cold than in moist climates.

On account of the rarity of the atmosphere, in consequence of the *high altitude*, a larger bulk of air is needed to oxidize the blood. Either the chest must be forced to greater distention, or the breathing must be much accelerated. Either of these processes necessarily causes increased destruction of lung tissue, etc., and, the power of digestion, etc., being equal to the task, also accelerated repair.

The beneficial qualities of this pure and almost constantly agitated air seem to lie more in its readiness to take up and carry away the impurities of the patient's exhalations and surroundings, than in its own healthful qualities.

The *sun light* is seldom obstructed by clouds or fog, so that its accompanying warmth and invigorating power is always to be counted on—principles so necessary to healthy organic life.

If other inducements were needed for out-door exercise, we have the magnificent scenery of our mountains, to withdraw the mind from an undue consideration of self, and to fill it with healthy enjoyment, instead of a constant brooding on disease, thereby leaving the nervous system undisturbed in its workings.

All these advantages contribute then to increased exercise, and therefore to increased destruction of organic tissue, in which very destruction consist the invigorating properties of this country, for thereby a healthy repair becomes at once and always necessary, and the out-of-door life and pure air stimulating the digestive apparatus to answer to this increased demand. If the latent functional force be there we have accomplished our end; old tissues will be destroyed with greater speed, to be replaced by younger and more vigorous material. That which is bad is, in short, replaced by that which is good—physiological products are substituted for pathological.

But, let it be remembered, the one "sine quo non," by which all this is to be accomplished, is a sufficient degree of digestive force.

With this, let the patient be sent to Colorado, (if the disease is not too far advanced;) *without* it, let him be advised to remain at home.

TREATMENT OF CONSUMPTION.

Hundreds of invalids in all stages of this disease come to Colorado, bringing with them various prescriptions from their eastern advisers, blind to the fact that the indications to be met in Denver may be very different from those to be prescribed for in New York.

Others, disgusted with all therapeutics and doctors, come here to depend on the climate alone, as a last resort, and confidently live in a room or go to a boarding house, to live the same in-door life they lived at home. Surrounded by the healthful influences of this country, they nevertheless know not how to profit from them.

It would be well for eastern invalids to dispense with the idea that Colorado is a wilderness and every physician in it by necessity a quack, and that consequently their whole medical treatment must come from home advisers, *i. e.* from men who, however excellent they may be in their place, yet have no practical knowledge of the climate and influences of this territory. It is almost needless to say that advice from such advisers, although well-meant in the east, nevertheless very often cannot be relied upon in the west.

As before stated, in the treatment of consumption the first indication is to pay heed to the function of digestion; to bring it into a normal state, or to preserve it in a normal state, if the function is fortunately already well-performed.

Everything possible must be done to keep up or to preserve a good appetite. This point is not so much to be accomplished by medicines as by a careful attention to and regulation of the secretions and excretions of the whole body.

In fact the rules of hygiene are the all important rules in the treatment of consumptives, without due attention to which the exhibition of drugs were but a feeble reliance. It is true certain indications may be met by the latter, but the grand general measures on which we place our main dependence must be hygiene.

As regards the food of the patient, that of the most nutritious and readily digested nature should always be chosen. Nitrogenous food especially of the animal kingdom, is of great value. Milk, eggs, meats, especially in the raw state and in the form of soups, with the addition of some vegetable substances.

The patient should be directed to make frequent and small meals, the more frequent the less in proportionate amount.

Let the hydro-carbons be used sparingly, especially in summer. The desired end is muscle—not fat.

Alcohol should be allowed in small quantities, ever bearing in mind that we wish to use this agent only as a food and not as a stimulant (in the general acceptation of the word), nor as a narcotic. Oxigenation being defective already, large quantities would cause blood poisoning much quicker than in health or at lesser altitude. The amount

eaten at any one time is a matter of importance. We wish never to give the gastric juice more to do at any one time than it can do properly. A large amount of partially digested food has much less use in the body than a very small amount which passes through the intestines thoroughly acted upon by the several digestive secretions in available condition for absorption and assimilation. Too much food of one kind calls too much for its digestion on some one intestinal fluid; causes exhaustion of the same, and consequently dyspepsia. In the choice of aliments seek therefore as great a variety as is consistent, and let me here insist once more on the frequency of the meals and th ir correspondingly small amount.

So long as the patient is considered a consumptive, he should never rely on two or three meals a day.

From the consideration of the patient's food, we come now to that of his *exercise.* Patients' ideas on this subject are apt to be extreme; either to push exercise to the limit of their strength, or not to exercise at all. Both ideas are incorrect. Although exceptional cases may improve thereby, yet to the majority either excess or absence of exercise would prove detrimental.

The rule is: never carry exercise so far that it causes undue fatigue, even if the exertion of walking across the room be too great, the patient should lie down until rested, even if it should take an hour or two; after which the effort should be repeated, and, as the invalid gains additional strength, he may gradually increase his exercise and diminish his rests, always remembering to stop short of undue fatigue.

Ventilation and personal cleanliness should not be overlooked. Careful directions should be given how to avoid the effects of sudden changes of temperature.

Complications should be met and treated in the manner respectively indicated, bearing always in mind that medicines should only be used where urgently required.

The patient's mind should be kept pleasantly occupied with other subjects than his own diseased condition.

A few words as to the mode of traveling may may not be out of place. The invalid should be instructed not to *fly* to the fountain of health, but to approach it carefully and by degrees, knowing that what may be potent for good may be potent for bad.

I have thus broadly stated my views with the intention of starting a discussion of the subject, so that we may in future have a fundamental guide, the result not so much of my ideas, as of the different opinions of this whole association on a topic so important to the physician of Colorado.

Monthly Abstract of the Medical Sciences.

SYCOSIS.—It has been recommended to use the tinct. of iodine in these cases. Many cures have been reported which resisted all other methods of treatment. In all such inflammations of the skin tinct. iodine is the best local application.

HEADACHE.—Dr. C. C. Vanderbeck recommends the use of ergot in headache; thirty drop doses of the tincture every half hour, until relief is obtained. He is of the opinion that it is a very useful agent, although not a specific.—*Boston Medical and Surgical Journal.*

REVERDIE'S TRANSPLANTATION.—Prof. Maas, of Frieburg, Germany, after discussing the general pathology and treatment of all forms of ulcers, devotes a good deal of space to the description of engraftments. He is of the opinion that engrafting is the very best thing that can be done.—*Sam. Klin. Vort. No.* 60.

RESECTION.—Dr. Mendenhall relates a case of resection of the surgical neck of the humerus in a child aged thirteen. He had sustained a compound fracture of that bone, and resection was the only thing that could be done. The patient recovered from the operation with considerable mobility, but 2¼ inches of shortening.—*Cincinnati L. and Observ.*

PATHOGNOMONIC SIGN OF PERTUSSIS.—The practitioner may sometimes be consulted on a case of whooping cough, without having the opportunity of witnessing a paroxysm. In such a case M. Bouchut recommends him to examine the frænum linguæ, which he will always find the seat of a small ulcer in children, the subject of pertussis, or who are on the point of becoming so.—[Revue Medico-photographique, *The Clinic,* April 18, 1874.

CONNECTION BETWEEN PUERPERAL FEVER AND ERYSIPELAS—Dr. Thos. C Minor, M. D. of Cincinnati, has given us the history and course, &c. of these two diseases. He regards them both as one and the same thing; that one seldom occurs without the other. He contends that puerperal fever is an internal erysipelas. He also relates many cases in which purulent ophthalmia was an accompaniment of puerperal fever. He has collected a number of statistics to prove the theories advanced. "In St. Louis there was an epidemic of puerperal fever, confined to the one portion of the city, with no cases of erysipelas reported."—Ed.—*Cincinnati L. and Observ.*

TRANSFUSION.—G. Tieman of N. Y., has manufactured a new instrument for this purpose. It consists of an India rubber bulb, oblong in shape, and of sufficient size to contain 2 fluid drachms; India rubber tubes six or seven inches in length attached to the extremities of the bulb and stop cocks attached the outer extremities of the tubes. Also, two silver tubes; one bevel pointed called the afferent tube, which is to be inserted into the vein in the arm of the patient; the other, round pointed, called the efferent tube, which is to be inserted into the vein of the arm of the donor. Also, a pair of fine forceps and a scalpel.—*Med. Record.*

PERINEAL LITHOTRIPSY.—Dr. Ernest Roackowitzer details three cases of this operation, and

gives his reasons for preferring this operation to median lithotomy, to wit: 1st, That it dilates the wound track, the prostatic portion, and the neck of the bladder, in a more gentle, and gradual manner than it is possible to with the finger; and 2d, in that it renounces beforehand the attempt of extracting a stone beyond the diameter of three-fourths of an inch, considering that the track established by median lithotomy cannot be stretched safely beyond the diameter of one inch without exposing the patient to the immediate and subsequent danger of tearing and contusing the parts, which constitute the way for extracting the stone. —*Med. Record.*

THE LOCAL TREATMENT OF PULMONARY CAVITIES BY INJECTIONS THROUGH THE CHEST WALLS.—Prof. Wm. Pepper gives in the Medical *Times*, for March 14th, an account of some experiments in the treatment of pulmonary cavities by injection through the chest walls, the cavities first being emptied by means of the aspirator. He employed the smallest canula (No. 1) which accompanies Dienlafoy's aspirator. The needle was introduced to a depth of from one-half an inch to two inches over the region where the physical signs gave evidence of the existence of a cavity. A few drops of thin. watery pus were withdrawn in one instance, and a little blood followed the puncture in one or two other cases. The only fluid which he had as yet tried as an injection, was a dilute Lugols solution (min. iv. to f dr. i), of which from four to ten min. were injected. The principal point demonstrated was the entire harmlessness of the procedure. Further trial is necessary to demonstrate its usefulness. Prof. Masler of Greifswald has also been experimenting in the same direction. Brief references to some of his cases reported in the Berliner *Klinische Wochenschrift* have appeared in the Medical *Times and Gasette.—Medical Examiner, April* 15, 1874.

REMARKABLE CASE OF COMPOUND COMMINUTED FRACTURE OF CRANIUM—RECOVERY. —Dr. J. P. Thomas, of St. Elmo, Ky., relates that on the first day of September last, he was called to see a colored boy six years old, who having been hooked by a cow, was found in the following condition: The horn entered the inner canthus of the left eye, had passed upwards through the frame and emerged about the left fronto-parietal suture, near the median line, breaking off a large portion of the left half of the os frontis, which was wholly detached, except over the left temple where the skin was still unbroken. The doctor says that after careful removal of all clots and about a teaspoonful of brain: "I then dissected the fractured bones, or pieces, four in number from the scalp. After carefully replacing the skin, with the portion of scalp detached over the exposed brain, I closed the wound with nineteen interrupted silk sutures," and covered with merely a water dressing, which, with the exception of a laxative dose of mag. sulph. was the only treatment given.

In twenty days the sutures were removed and wound found to have healed by first intention. There was entire absence of fever from first to last; only temporary and then but partial insensibility.

The patient had perfectly recovered, with the exception of ptosis, on the 25th day. There was no impairment of intellection. — *Richmond and Louisville Med. Jour.*

A NEW SIGN OF DEATH.—M. Bouchut stated, at the Académie des Sciences, that at the moment of death gases which are normally imprisoned in the venous blood are disengaged, forming a pneumatosis of the veins. The pneumatosis of the veins of the retina is easily appreciable by the opthalmoseope, and constitutes an immediate and certain sign of death. This pneumatosis is indicated at the moment of death by theinterruption of the column of blood in these veins, a phenomenon similar to that which is observed in the interrupted column of a thermometer with colored alcohol.

Editorial.

THE SOCIAL EVIL PROBLEM.

The Legislature of the State of Missouri has seen fit, upon high moral grounds we take it, to repeal the ordinance of the city of St. Louis appertaining to the regulation of prostitution. In its stead we have been presented with a "compromise," so-called, more absurd in its provisions, and calculated to be more pernicious in its results than any similar enactment in the history of legislation. Whereas, formerly under the operations of the Social Evil Ordinance, prostitutes were subjected to a systematic police and medical *surveillance*, whereby vice could be repressed, morality and religion inculcated, and the ravages of disease checked; now, we find the authorities hampered, the opportunity for reaching this class with good influences gone, and their "right" to spread disease, demoralization and death unmolested. In all ages, amongst all people, and under all forms of civilizations, prostitution has existed, and it is more than probable that so long as our poor humanity is swayed by the same motives, and controlled by the same passions that now influence it, this flagrant social vice will continue. The pulpit has fulminated its anathemas against it, moralists have deplored it, and statesmen have taxed their ingenuity to its extremest limit in earnest endeavor to palliate if not to cure this crying evil. It is self-evident to the most casual observer, that this baneful scourge is too deeply fastened upon the vitiated constitution of human society ever to be eradicated. Then, since we cannot cure—and the teachings of experience demonstrate our impotency in this respect—are there no means in our power to ameliorate this deplorable condition of affairs? Before we attempt an answer to this pressing question, let us take a cursory glance at the history of prostitution to see if it is not possible to extract some information from the lessons o the past.

Prostitution is coeval with society, and our earliest acquaintance with the human race exhibits it in one or another form. It would appear that at various times, and amongst various peoples, three distinct lines of policy have been pursued in dealing with this hydra-headed monster :—

Strenuous efforts at total suppression
Tacit permission.
Toleration.

Before we can arrive at any definite conclusions in regard to the merits of any of these measures, it will be necessary to briefly review the results attained by each of them. It is now generally conceded that any legal enactments having in view the forcible repression of vice, are worse than useless; for as men must have a vent for their brutal passions, it but redounds to the gross demoralization of social life, and the invasion of the most sacred circles with licentiousness. It is stated that "an ordinance of Charles IX., dated 1560, prohibited the opening or keeping of any brothel or house of reception for prostitutes in Paris. For a short period it seems that the practice was actually suppressed, and the consequence is said to have been a large increase of secret debauchery. In 1588 an ordinance of Henry III. reaffirmed the ordinance of 1560, and alleged that the magistrates of the city connived at the establishment of brothels. Ordinances of the provost follow in the same strain, and all prostitutes are required to leave Paris within twenty-four hours. An ordinance dated 1635 was still more rigorous. It condemned all men concerned in the "traffic of prostitution to the galleys for life," and all women and girls "to be whipped, shaved, and banished without any formal trial." As might be imagined this ordinance was alternately disregarded and made to serve the purposes of private malice. Men who wished to revenge themselves on their mistresses accused them of being prostitutes; but *it does not appear that the actual supply was ever seriously diminished.*"* Simular experiments were inaugurated in Prussia and other countries of Europe with like results.

It is needless to discuss this branch of our subject further, as the dictates of science, morality and common reason suggests the impracticability of such schemes.

Therefore, since our candid judgments teach us that the above mentioned plan of treating this delicate question is ineffectual and pernicious beyond measure, the favorite "moral method" is to have several inopperative legal inactments upon the statute book, and otherwise to *tacitly permit* this hideous vice; being quite sure, however, never to allow the shrieks of anguish from these lost wretches to disturb our equanimity, or betraying for a moment that we are aware that very hot-beds of disease and guilt are reeking in our midst. In Stockholm, where no system of regulation was in operation, it was ascertained that in the year 1832 one person in every sixty-one was affected with syphilis. "In London and other towns of England where prostitution is uncontrolled, the consequences are frightful to contemplace. The Waterloo road, the Quadrent, Haymarket and Waterloo place, offer rights of libertinage and vice beyond the most dissolute cities of the continent, says the Lancet."† But it is not necessary to go from home to illustrate the fearful consequences of the system of tacit permission. Any one has but to recall the night scenes in any large city in the United States, to investigate hospital statistics, and to note the innumerable quack advertisements for the cure of venereal diseases, to judge of the amount of vice and disease incident to such a condition of aftairs. Countless young men are daily contaminated with syphilis, and are doomed to bequeath this miserable heritage to their offspring; numberless young girls are yearly dragged into a life of shame, and their lives blasted forever, merely because the bawd and procuress are untrammeled in their actions, and are at "liberty" to propagate disease and seduce innocence at their pleasure. But, forsooth, the prostitute is a "sister and a citizen," and we must not degrade her with physical explorations, nor suffer the sanctity of the brothel-house to be violated by the minions of the law. Such is the cant of the highly moral, and the absurd utterances of people, who—though doubtless well intentioned—are not capable of intelligent judgment in this matter. The system of toleration—which does not mean authorization—is the one which the universal testimony of mankind in all ages seems to have commended as the most feasible and just, as is evidenced by its adoption from the earliest periods. According to Tacitus, this had been the custom from time immemorial in Rome, and even at that time we observe a real regard exhibited for the welfare of the prostitute; for it is said that the ædiles, before issuing the *licentia stupri*, frequently attempted to dissuade women, especially if they appeared young or well-connected, from their contemplated course. Of course at that distant day, and for many centuries subsequently, regulation merely consisted in police supervision, without the important element of conjoined medical inspection.

In France and other European countries where the medical-police system was early inaugurated, it is but necessary to turn to the full and reliable statistics to be entirely convinced of the beneficial operations of the law. In those towns in Great Britain where advantage has been taken of the provisions of the Contagious Disease Act, the authorities, especially of the army and navy, have every reason to congratulate themselves upon its enforcement.

We will now proceed to concisely sum up the superior advantages claimed for this system of toleration:

1st. It affords the only means known to bring the prostitute in contact with the elevating influences of morality and religion.

2d. It directly subserves the ends of justice by

*History of Prostitution, Sanger, New York, 1858.

†Prostitution in Relation to Public Health, Barret, St. Louis, 1873.

keeping this class and their vicious associates under the eye of the police.

3d. It diminishes the actual number of prostitutes, except those so from choice, by deterring many from entering the ranks of shame.

4th. By this means many are snatched from a life of debauchery, and instructed in the manner of gaining an honest livelihood.

5th. The average duration of the bawd's life being four years when untrammeled, by judicious hospital treatment her span of existence is lengthened.

6th. Statistics abundantly prove that through the influence of medical inspection the fearful spread of venereal disease is checked.

7th. This system tends to the diminution of private prostitutes, street-walkers and kept-women, and allows the authorities to control and concentrate prostitution, always a desirable object.

8th. It enables the police to restrain the flagrant public exhibitions of licentiousness, so common where this degraded element is uncontrolled.

9th. And finally, this system is of immense indirect benefit to the wife, the mother, and the unborn child, by eradicating the sources of infection to which men in their unbridled passions *will expose themselves.* Now, since human nature is what we know it too well to be, and men will gratify their lust in the face of most certain retribution, society must and will suffer the consequences. History has demonstrated over and over again that prostitution *cannot be crushed out;* whilst daily experience teaches us that vice could not possibly be more shameless and disease more wide-spread than it now is. Then in the name of common sense which dictates it, at the behests of humanity, religion and morality, which should sanction it, why hesitate in the adoption of a system which affords the only real evidence of regard for the guilty, protects the innocent, and gives us the only safeguard for the moral and physical health of the human race?

That the system of toleration, as tested in St. Louis, operated most beneficially in the interests of the community, and for the welfare of the prostitute, no one can doubt. In confirmation of this assertion it is but necessary to refer to the carefully collected statistics presented in a report to the Board of Health by our former efficient health officer, Dr. Barret, and to turn to the truly gratifying spectacle of the many inmates of the House of Industry seeking the purer and better way, influenced by the ministries of good men and noble women, which could only thus effectually reach them.

Moreover, we find in the face of statements to the contrary, *that the women themselves were fully aware of the physical benefits arising out of the law; for in many instances they have caused the examinations to be continued at their own expense!*

In conclusion, we sincerely trust that the medical men of this city, at least, appreciating to its full extent the philanthropic efforts of the Health Board, and the earnest endeavors of our excellent Mayor, will in the interests of humanity strive to obtain a reconsideration of this much vexed question.

Book Notices and Reviews.

PSYCHOLOGICAL RETROSPECT.

"AMERICAN JOURNAL OF INSANITY," January, 1874, Utica, N. Y. Journal of Mental Science, January, 1874. London.

We regret that we cannot copy entire the leading article in the *American Journal of Insanity*—"The Pathology of Insanity," by the justly celebrated Superintendent of the New York State Asylum at Utica. This paper was read before the Association of Medical Superintendents of American Institutions for the Insane, at their last annual meeting in Baltimore, in May last. The photo-micrographs of diseased structures demonstrated the truth of the propositions advanced, at least they gave much support to Dr. Gray's theories. The points discussed were: the microscopic appearances of brain tissue apparently normal to the unassisted eye, and conclusions drawn therefrom.

We will briefly note that his investigations in a measure confirm the principle "that in insanity we have to contend with only one disease manifesting itself under different phases in its progress and results."

General paresis, epileptic insanity and mania proper, are considered as separate classes following the histological appearances presented.

These investigations uphold the principle "that insanity is a physical disease of the brain, and that the mental phenomena are symptoms." Another conclusion to which these investigations lead is, "that emotional, ideational and motor disturbances have their foundation in the extent and degree to which the nerve elements that minister to the execution of intellectual and motor acts are involved in the lesion." In other words, that the different faculties of the mind are localized in the brain, and are affected when their centres are diseased.

Dr. Ordronaux discusses the question of Expert Testimony in Judicial Proceedings. The chaotic state of our jurisprudence upon this subject and the legal paradox of terming the expert *a witness* are well discussed, and a way out of the present confusion is suggested, viz: that the expert shall be removed from the field of testimony to that of arbitration—a change which is urgently needed for the honor of our profession, as well as that justice may be done.

Dr. Theodore Duch begins an interesting discussion of the subject of "The Perivascular Spaces in the Nervous Centres"—only the bibliography of the subject and a discussion of the methods of experimentation are given in this number, a continuation is promised, therefore we await the conclusion before considering the subject at length.

Two cases of paralysis, their treatment and

results are communicated by Dr. D. H. Kitchen. 1st. Case of Lead Paralysis. 2d. Paralysis of left leg with progressive muscular atrophy. Localized electrization with the continuous current rapidly relieved the paralysis and restored the muscles to their former volume and strength.

Dr. W. E. Ford gives the results of the administration of phosphorus in fifteen cases of insanity. His conclusions are that "the action of phosphorus upon the nervous system appears equally as striking and definite as that of iron upon the blood," and that "the best results have been attained from its use in small doses, and continued for a long time."

Dr. E. H. Van Deusen of the Michigan State Asylum, records a case of recovery of a case of insanity where hæmatoma auris was present. This has been considered by many as an unfailing sign of the incurable nature of the case of insanity where it was present.

Dr. Van Deusen's case is the third recorded of recovery.

In the *Journal of Medical Science*, Dr. David Skae's Posthumous Morisonian Lectures on Insanity,—edited by Dr. T. S. Cluston—are continued, this being the second of the series. He, of course, gives Dr. Skae's nosology of insanity, and this lecture is a description of the principal varieties in that classification. Many will object that Dr. S.'s table is cumbrous and manifestly incomplete, still all must acknowledge its convenience.

Dr. Geo. F. Blandford writes an important article upon Auditory Hallucinations and their significance. His conclusions that the prognosis is unfavorable, that patients thus afflicted are among the most dangerous lunatics, and that the trouble grows from bad to worse in the vast majority of cases, will be assented to by all having much opportunity of observing the insane.

W. A. F. Browne, late Commissioner in Lunacy for Scotland, contributes a curious and suggestive article upon "The Perception of Time as a feature in Mental disease." His conclusions are, that the subjective measurement of time cannot depend upon any act of consciousness in noting the succession of mental states; that the hypothesis of a regular succession of external impressions must be set aside, and finally, that all the facts stated lead to "a belief in a time-perceiving and time-regulating power, either created and conducted by some physico-psychical operation, or by intuitions similar to those which recognize the relations of numbers, etc., and which certainly depend upon the integrity and activity of the whole, or of a part of the nervous centres."

J. R. Gesquit, M. B. continues his psychological study of madness as displayed by the writers of ancient Greece. The series "The Madmen of the Greek Theatre," is curious as showing the insight of the ancients into the workings of the dethroned reason.

Dr. J. Wilkie Burmen gives an interesting account of his visits to four of the Departmental Asylums in the north-west of France. The object of the paper is to compare the condition of the *pauper* insane in France with the same class in England. Two institutions are described in this paper, the visit to the other two and general conclusions being reserved for the April number. The institutions visited were:

1. L'Asile de Léhon, at Dinan.
2. L'Asile St. Athanase, at Quimfur.
3. L'Asile St. Mien, at Rennes.
4. L'Asile de Pontorson, at Pontorson.

The first named accommodates the *male* insane for the departments Côtes-du-Nord and Marbihan. The brothers of St.-Jean-de-Dieu, about 60 in number, devote their whole time and energies to the care of the afflicted inmates—about 600 in number—400 of whom are paupers, who are maintained at an expense to the public of one franc per diem. Thirty-nine employees assist the sixty brethren in taking care of the insane; the domestics receive 20 francs ($5) per month. The pauper patients are very poorly clothed; a great deal of restraint is used; recoveries average 15 per cent. and deaths 10 per cent. on the average number present. About one-sixth owe their insanity to alcoholic excesses. But we must defer the remainder of our retrospect to the next number.

W. B. H.

"The Medical Adviser in Life Assurance," By Edward Henry Sieveking, M. D., F. R. C. P., Physician to St. Mary's and the Lock Hospitals, etc., etc. Duo, 179 pages. Philadelphia, Lindsay & Blakiston, 1874. (For sale by Gray, Baker & Co.)

We have received the above American edition of this recent English publication, and after perusal take pleasure in recommending its careful study to our professional brethren, especially to those engaged in the responsible duties of medical examiners for insurance companies. The name of the distinguished author of this little volume is itself a sufficient guaranty of its merit and usefulness, and when we learn from the book itself that the views and opinions of the writer are not based upon mere theory, but are the results of large experience and mature study, our acceptance of its teachings and advice will be readily and gratefully given.

In the whole range of political economy there is no subject of more vital importance, nor more intimately connected with the happiness and comfort of the civilized portion of the human race, than the question of life insurance. The many advantages to be derived from life insurance we leave to be detailed by the busy *solicitor*, whose oft-told tale has become as familiar as household words. While the benefits and blessings of this really ingenious mode of providing for the family at comparatively trifling cost are self evident and need no demonstration, yet the choice of a perfectly reliable and trustworthy company, at least in these United States, is by no means a matter of easy attainment; for in these days of demoralization, of fraud and corruption, few men seem able to resist the demon temptation, and life insurance companies equally with other public beneficiary establishments have fallen into disrepute, and lost so much of the public confidence as to have diminished materially (for the present only let us hope) their sphere of usefulness. While it is therefore advisable before entering into a contract with any special company, to consider well the character of its President and Directory, the general qualifications of its medical examiners; their professional and moral status ought all to be satisfactorily established in the mind of the applicant. While recent developments in our very midst have illustrated to us the necessity of the first inquiry, a not inconsiderable experience in the insurance business has demonstrated to us the great unfitness of a very large portion of the examiners to whom is intrusted the decision of a question of vital impor-

tance to the prosperity and welfare of the companies.

The strongest institution in the world may totter and fall beneath the heavy weight of its death losses, dependent upon the dishonesty or incapacity of its examiners and advisers. But just so long as insurance companies in this country pursue the "ring policy," and choose their medical officers because they form connecting links in the circumferential chain or are within the circle, be they ignorant, imbecile, or otherwise disqualified, just so long will they fail to secure an entire public confidence and necessarily limit the range of their operations.

It is suggested then to the *conscientious* examiner, that he may read the book under consideration with much profit and instruction, especially chapter III, on the "Duties of the Medical Officer," where he will find some valuable hints which, if made a note of and followed out, will save him much annoyance from subsequent and totally unlooked for developments in connection with his relations both to his company and to those applicants who may have come under his scrutiny.

Chapter V, on the "Insurer's liability to disease" is full of information, and makes some suggestions as to modes and completeness of examinations which our companies would do well to consider. In conclusion we may say we know of no better book on this subject, and heartily commend it. P. G. R.

Miscellaneous Notes.

DEATHS IN LONDON.—In London there were 1754 deaths registered for one week in March.

DEATH OF DR. KILGOUR. — This eminent Scotch physician died Feb. 19th, aged 70 years.

GOSSELIN was the successful candidate for the vacant seat of Nelaton in the Academy of Sciences.

At a meeting of the Board of Trustees of Jefferson Medical College on April 7th, Dr. Wm. H. Pancoast was elected to the chair of anatomy.

AMERICAN MEDICAL ASSOCIATION.—The twenty-fifth annual session will be held in Detroit, commencing Tuesday, June 2, 1874.

DR. WILSON FOX has been appointed Physician in Ordinary to their R. H. the Duke and Duchess of Edinburgh.

DURING a recent London fog, nearly two hundred persons perished from cardiac and respiratory diseases.

A CREMATION SOCIETY has been established in New York; the next thing needed will be some of its members for experiment.

DR. S. S. POTTS and A. B. Spence have opened a Hospital for Diseases of Women at Mexico, Mo.; a similar enterprise has been inaugurated at Columbia, by Dr. V. P. Maupin.

THE Richmond and Louisville *Medical Journal* says that it has at last been discovered when beef-tea was first used in England; when Henry VIII. dissolved the Pope's bull.

APPOINTMENT.—Prof. J. K. Bauduy, attending physician to St. Vincent's Institution for the Insane, has been appointed consulting physician to the County Insane Asylum.

DISSECTIONS LEGALIZED.—The Legislature of the State of Missouri, during its present session, has enacted a law making dissections legal. It should have been done long ere this.

METHYL-BICHORIDE.—This anæsthetic is being used at the St. John's hospital with the best of results, and so far it seems to possess many advantages over both chloroform and ether.

PROBLEM SOLVED.—The problem which agitated the professional mind for so many years, as to the connection existing between Chang and Eng, has at last been solved, but in a manner, we presume, very distasteful to the Siamese twins.

DEATH FROM A DOSE OF CHLORAL AND BROMIDE OF POTASSIUM.—The Cincinnati *Clinic* reports the death of a physician of that place from having taken at one dose a mixture containing one-half oz. of bromide of potassium, and one drachm of chloral.

ADULTERATION OF BEER.—Dr. Graham, in a lecture before the London Society of Arts, stated that on the question of adulteration there had been a great deal of exaggeration, and that for the most part the only adulteration resorted to was the introduction of the harmless fluid with which dairymen were not unacquainted—water.

AUTOPSY OF AGASSIZ.—The brain of this great naturalist weighed 1.495 grammes, or 53.4 oz. avoirdupois. The right anterior lobe (separated at the fissure of Rolando), weighed 234 grammes, and the left anterior lobe weighed 233 grammes. Before the removal of the skin the head measured 197 mill. met. in its antero-posterior, and 163 mill. met. in its bilateral diameters.

INCONTINENCE OF URINE.—Dr. Thomas Kennard, of New York, uses the following ointment in the treatment of this disease: sulphate of atropia, ten grains; veratria, ten grains; lard, twelve draehms. By rubbing the perineum three times daily with the ointment, in three cases of paralysis accompanied by incontinence of urine, Dr. Kennard obtained a complete recovery at the end of a few days.

A CHILDREN'S HOSPITAL.—There is an effort being made to establish in this city a hospital for the treatment of the medical and surgical diseases of infancy and childhood. A charity of this character is much needed, and we are confident—the names of the gentlemen connected with the project being ample guarantee—that the necessary steps for its accomplishment will be pushed forward with energy and spirit.

CONTAGIOUS DISEASE ACT.—The beneficial results of the Contagious Disease Act in the prevention of veneral diseases among the troops has been strikingly shown, says the *Army and Navy Gazette*, during the recent autumnal manœuvres

at Dartmoor, when it was found that five times as many cases, in proportion to the strength, were admitted to hospital among men coming from unprotected places, as were admitted from places under the Contagious Disease Act.—*Med. Times and Gazette, London, January*, 1874.

SIMILARITY OF TWINS.—Dr. Bird, in the Cincinnati *Lancet and Observer* states: "In my experience, and that extends to a number of well-marked cases during a period of over thirty years, I have invariably found that when twins are contained in the same sac, and sustained by the same placenta, they have always had a slight resemblance to each other; whilst those contained in different sacs, and sustained by different placenta, are as unlike as children born of the same parents at different periods, however remote. This hypothesis is sustained not only by actual and positive and repeated observation, but by inquiries made of other observers. In one family there are two cases of twins. The first pair were contained in the same sac of waters, and are exactly alike; the other pair were delivered from different sacs, and are no more alike than are the other children. I delivered also a case of triplets, each child was in a separate sac, and neither resembled the other particularly.

ST. LOUIS MEDICAL COLLEGE.—The graduating exercises in this college took place in the Temple, March 12th. Prof. McDowell gave the charge to the graduating class. Samuel S. Bacon, Henry Clay Bagot, William N. Baker, Lyman A. Berger, Jacob E. Brecht, Pierce E. Butler, Jr. Adolphus A. Brown, Wilbur M, Carpenter, Geo. S. Curtis, George W. Crum, Thomas Jefferson Downing, Jesse B. Douglass, Clarence E. Edwards, Robert B. English, Joseph A. Fischer, William T. Gregory, Henry Hildreth, William Harrison, David H. Henderson, Henry T. Hendrix, William H. Hobson, William A. Hemphill. Charles L. La Barge, Charles N. Litton, Jas. P. Little, Thomas H. McBride, William F. Martinek, Dennis McCaffrey, William McGrnw, Robert McReynolds, Oliver Milham, Thos. Craig Miller, Geo. Larkin Mock, John Baker Morris, Jos. Neville, William Reilly, William Penn Sheetz; James Polka Shelton, Henry Clement Simpson, James Washington Smith, James William Sprinhill, Overton Carr Todd, Barllett Norton Torrey, Edwin P. Vaughn, Wm. Garrett Weaver, Oscar Hamilton Woodsworth.

Ad eundem degress were conferred on Henry McBride Kier of Mo; Aurelius T. Bartlett, M. D.; of Illionois; M. A. Edward Borck, M. D., of Mo.; Jamas Thoms Scott, M. D., of Mo.

DEATH OF CRUVEILHEIR.—Another of the great names which adorn the medical literature of fame has passed away at the good old age of 83. Cruveilheir's was a European reputation, and his name has ever been identified with the subject on which he wrote his thesis for the Doctorate of Paris in 1816, viz: Pathological Anatomy. His great work on that subject has been, for nearly two generations, a sort of quarry or reservoir, from which other laborers in the same field have hewn or drawn material to found their own superstructure; and the great atlas of pathological drawings which illustrate the work has not yet been equaled in size or completeness. His hospital work was incessant, pains-taking and successful. He was no mere pathologist; he was also an able clinical physician, witness his labors on purulent infection, on progressive muscular atrophy, and many other important subjects. He had a large and lucrative practice, and we learn from the notices of his life in the Parisian medical papers, that his liberality and kindness to the poor were very great. For some years, age and labor had began to tell on him, and he died on the 6th of March at his country seat near Limoges, having enjoyed, like his northern fellow-laborer, Kilgour, the repose and calm retreat he had worked for so well during the latter days of a well-filled life.—*Ed'n Med. Journal.*

THE SOCIAL EVIL QUESTION IN CANADA.—The Canada *Medical Record* remarks editorially: "Inasmuch as it is impossible to remove the predisposing causes which spread widecast certain affections, especially syphilis, we cannot see any other mode to keep them in check than by adopting a system of registration and inspection. We have no doubt that if such a system was universally carried out, syphilis might be entirely eradicated from our midst. That amelioration has followed the adoption of registration and inspection there can be no doubt. It has been proved, from statistics compiled in Great Britain, that wherever the Contagious Disease Act has been enforced this disease has been greatly checked. From the army returns it has been shown that there is a marked decline in the admission of primary sores wherever the Act is in operation. If we compare the proportions of admission in stations at which the Act is in force, with those where it is not, we find the admission per thousand, for primary venereal sores to be fifty-four at the former and one hundred and thirteen at the latter. It is therefore marvelous that measures have not long before this been adopted to protect the community from a disease which is more dangerous to the individual and his offspring than small-pox, and is more insidious in its effects."

" ADMINISTRATION OF COD-LIVER OIL.—Prof. O. A. Wall, in a communication to us, suggests the following new and valuable method of giving cod-liver oil.

"I lately had occasion to prescribe cod-liver oil for a lady patient, but after having unsuccessfully tried the various plans usually recommended to render this oil less obnoxious to the taste, the patient refused to continue the use of the medicine. I then tried the following plan which answered the purpose admirably and is an excellent method of giving the oil: Cut a wafer (such as is sold in drug stores for the administration of nauseous powders, pills, &c.) into pieces about three inches square, moisten one of these pieces and place it into a deep tablespoon, then pour a dessertspoonful of oil upon the wafer and fold the edges carefully over the oil, fill the spoon with lemon syrup, or if preferred, with syrup of lacto-phosphate of lime, with which all sides of the wafer must be moistened. Then let the patient swallow it at one gulp and it will pass down without other taste than that of the syrup. If taken soon after a meal, the oil becomes mixed and is digested with the food, and the disagreeable regurgitation of the oil is completely avoided. I think this method will be found useful when the patient cannot otherwise take the oil."

Clinical Reports.

GYNÆCOLOGY.

VAGINAL NEURALGIA.

BY DR. FRED. KOLBENHEYER, St. Louis, Mo.

During the last two years, three gynæcological cases have come under my care, in which neuralgic pains in the region of the vagina were the chief morbid symptoms, and which appeared to be of sufficient interest for publication.

CASE 1.—Mrs. F., aged 29. Married and mother of two children, it being eight years since the last birth. Orifice of vagina narrowed and excessively painful. Columna plicarum ant. much reddened, very sensitive, and enlarged lengthwise to a swelling an inch in thickness. Posterior part of vagina normal, also all parts of the uterus. Coitus impossible. Pain extended from the columna over the anterior abdominal wall up to the breast. Frequent desire to micturate; continuous headache; general, marked ill health. Excess probably the exciting cause. A few days after the first examination I proceeded to the following operation, as I saw little prospect for giving the patient relief and eventual cure in any other way:

I seized the hypertrophied folds between the blades of a straight forceps, and removed them with scissors, immediately cauterizing the raw surface with caustic potash. The following night there was fever; pulse 110; great mental change; convulsive, muscular twitchings.

Free administration of chloral and morphia produced quiet and sleep. Next day, frequent micturition; on the third day, complete freedom from pain; on fourth day, eschar came off; general good health. After three and a half weeks, healing of wound and complete disappearance of all morbid symptoms. Upon careful examination, however, there was found a slightly ulcerated spot at the orificium urethræ. The urethra was laid open to the length of about six lines. This lesion was caused, doubtless by the caustic. This lengthened urethral opening was the site of a slight, but persistent inflammation, kept up by the passage of the urine. For half a year this inflammation resisted all treatment, and as the inconvenience was trifling, the patient preferred to endure it.

CASE 2.—In the summer of 1872, Mrs. T. came to my office, a vigorous, healthy appearing woman, of 27 years. She had been married two years, but had born no children, nor become pregnant. According to her statement, a few weeks after her marriage her ill health began, and little by little assumed its present character, notwithstanding the efforts of the different physicians to whom she had applied. She complained above all, of an incessant pain behind the vaginal entrance, which upon coition increased to an intolerable degree. She desired, consequently, to abstain from having connection with her husband.

Examination disclosed nothing abnormal in the condition of the vagina except a slight swelling of the columna plicarum, and where was located the pain above mentioned. Uterus normal and like that of a nullipara. According to the patient this pain originating in vagina extended up into the abdominal walls. On examination of abdomen a remarkable condition was found, which becomes more marked after each sexual act.

Parallel to the transverse colon, the abdominal walls in their whole breadth were drawn in and then restored again. The extent of this movement varied, sometimes being so slight as to be just visible, again the whole hand might be laid in the depression of the abdominal wall, which contained abundant adipose tissue. The lady declared that before marriage her health had been perfect, and that she had first noticed this peculiar movement on the development of the vaginal pain. As patient never had peritonitis, and the functions of the intestines were performed normally, even at the time of the greatest sinking in of the abdomen, I excluded all connection with any of the abdominal viscera. At a later examination I ascertained that each inward movement coincided with an act of expiration. I believe, therefore, that this is a case of clonic spasm of the diaphragm while in the act of contraction. What connection, if indeed there was any, this might have with the vaginal neuralgia, I did not venture to decide, nor do I up to this time.

Proceeding to treatment, I thought it first of all necessary to relieve the vaginal pain. Giving an anæsthetic, I cauterized the columna plic. with the hot iron to an extent of an inch in length by at least 6 or 8 lines in breadth, and well in depth. On the fourth day the eschar was cast off, and in three weeks the wound was entirely healed, the pain meanwhile having disappeared. Mrs. T. could now again fulfil her marriage relations, but she maintained that all sensation was lost. While the wound was healing, I injected hypodermically morph. acet. into the abdominal walls. The points of injection suppurated freely. After the first injection the patient was relieved from the above described sinking in of the abdominal wall for fully twenty-four hours. The subsequent injections, however, failed to produce the desired effect. I then used the constant current, which after a number of sittings proved of no avail. In this case the hot iron cured completely the vaginal neuralgia. But there can scarcely be discovered any pathologically demonstrative cause for the sinking in of the abdominal walls. Nevertheless the patient declares that up to this time, it increases and diminishes with certain manifestations of the sexual orgasm.

The abundant and painless menstruation affords her great relief, also abstention form intercourse with her husband.

May 1874. This lady is again under my treetment for vaginal catarrh. She states that with the improvement of her general health, the spasms have become more frequent and violent. The catarrh is now almost checked. The peculiar abdominal movement has never ceased. Patient's health comparatively good. Cicatrix on colum. plic, is not hard, has contracted and retracted, and the entrance into the vagina is again naturally sensitive.

CASE 3.—In the early part of January 1873, Mrs. F., of Rolla, Mo., aged 28, of large size and robust appearance, came to my office. Married, and has given birth to three children, the last, one and a half years previous to date. Menstruation regular but somewhat painful. Slight fluor albus. Feeling of weight in abdomen. Bi-Mannual examination discovered a very painful spot upon the columna plicarum ant. which was not hypertrophied. Uterus slightly anteverted, sensitive on pressure. Portia vaginalis somewhat enlarged, hard, also sensitive. During the examination the patient was siezed with violent shivering.

She gave the following history: For sometime past, generally on touching the painful spot on the columna and sometimes without any such cause, she felt occasionally sexual excitement, which sensation always proceeded from that spot. This gave rise to a general trembling and such mental disorder that it would be often a half hour and longer before she recovered herself. This state of things gave her much mortification, being a highly respectable lady. It finally produced a lasting prostration of mind, indeed a kind of melancholia, which neither the presence of her husband nor of her children could dissipate. It was on account of this irritability that she sought medical advice.

On examination with speculum, no visible change in the columna or portia vaginalis was observed. Uterus swollen, and out of the os flowed a moderate amount of milky fluid. Sound passed in two and a half inches with ease. Clitoris small and comparatively not sensitive.

With what pathological condition have we here to deal? A chronic metritis, at all events, an inflammation of the portia vaginalis uteri and of the mucous membrane of the canal. A neurosis having its seat in the nerves of the columna plicarum, a vaginismus with reflex neurosis (psychical neurosis.)

I first applied with a brush Tinct. Iod. to the cervical canal and touched the painful spot of the plica with Arg nit., in substance. On the third day I set four leeches to the cervix uteri and encouraged a free flow of blood. The fluor as well as the sensitiveness of the uterus was materially reduced under this treatment. The painfulness in the plica however, remained undiminished, and the resulting irritability yielded but little. This led me to proceed to the treatment of the cavity of the uterus with an application of the hot iron to the painful spot, this being about the size of a one cent piece. The cauterization was pretty deep and extended over the immediate vicinity of the neuralgic region. By the fifth day the wound sloughed off, leaving a healthy surface which quickly contracted and healed. From that time on the irritability entirely disappeared, nor did it return so long as the lady remained under my care. During the healing of the cauterized spot, I injected into the uterine cavity diluted Tinct. Iod. (1 part tinct. to 2 of water), about six times, in intervals of three days, and thus relieved all morbid sensitiveness of the uterus as well as the discharge.

All together, Mrs. F. was five weeks under my treatment. On the last day she said that she felt again a peculiar tickling sensation at orificium vaginæ, but as she was unwilling to remain longer I dismissed her without any further treatment.

Afterwards I received the following history: Soon after her return home she became pregnant again. Her period of pregnancy passed very badly, but she gave birth at full term to a healthy child, the delivery not being particularly difficult. A short time after this birth all the previously described spasmodic manifestations appeared again, intensified by temporary mental disturbances, these last rendering her unfit for any domestic occupation.

Her husband decided accordingly, about two months ago to return to Europe, hoping to find relief for his wife in the reunion with her relatives, as well as in the skill of the European physicians.

PRACTICE OF MEDICINE.

A CASE OF ADDISON'S DISEASE.

BY C. D. KUNKLE, M. D., QUARANTINE HOSPITAL.

The patient, Andrias G., is 33 years old, single and a laborer by occupation. He is a Bohemian by birth, and has been in this country about two years. His father and mother are both living. The former has ascites and œdema of the lower extremities, but is improved now. His mother is healthy.

The habits of the patient have been good; he has not been a drinker, nor has he indulged in other excesses; has had no venereal disease. He has been sick of his present illness since last August. At that time he was working in a sewer, and was attacked with some trouble in his chest, accompanied by great pain, which extended from the lower border of the ribs to the apex of the lung on the left side. The attack was ushered in by a chill. Of this attack he soon recovered, being able to go about in three or four days.

In eight days from the beginning of this trouble, swelling occurred in the feet, lower part of the abdomen, and scrotum. This swelling has never dis-

appeared entirely, but there has at times been some improvement under a tonic treatment. This œdema is accompanied by a sense of weakness and fatigue in the lower extremeties. He has no pain now, nor has he had any since the improvement in the beginning of the attack. The patient suffers from dyspnœa upon the slightest exercise, so that he is able to make but little exertion, though he is able to sit up the greater part of the day, and does so.

At this time his pulse is 120, small and feeble; respirations 20 per minute, and axillary temperature 101.

His general condition is that of anæmia, as indicated by the small, weak and frequent pulse. His appetite is not good, bowels regular generally, though he has occasional attacks of acute diarrhœa.

His urine as examined by Dr. Dean, city chemist, was found to indicate no special abnormities in chemical or microscopical characters.

He presents the peculiar discoloration of skin which is characteristic of *Addison's Disease or Bronzed skin*, and which can only be mistaken for the discoloration produced by the long use of nitrate of silver. He gives no history of ever having taken this drug.

This discoloration has been gradually deepening for six weeks; making its appearance first on the face and neck and hands, or the parts most exposed, and more lately it has occurred in the feet. The dark color of the skin is in striking contrast with the pearly hue of the sclerotica, and the dark spots on the mouth and lips are apparent.

Upon first entering the hospital, and before the true nature of the trouble was recognized, he was treated for remittent fever and anæmia, by quinine, iron &c.

Later, when the true nature of the trouble was recognized, he was treated with diuretics and alkalies. Under this treatment he expressed himself to be relieved, though he did nat appear to me to be really benefitted; in fact the disease seems to be steadily progressing.

This case is an interesting one from the fact that the patient does not present that extreme degree of debility or anæmia which obtains in the majority of cases that have been described. The patient sits up the most of the day, and seems in pretty good spirits.

The anatomical characters of this case it is of course impossible to know at present; whether the supra-renal capsules have undergone or are undergoing morbid changes we cannot tell. If they are the seat of any pathological condition, I would give preference in my diagnosis, to the chronic inflamatory kind, which results in the caseous degeneration, since we have no evidence of cancerous or tubercular deposits in any other situation.

SUDOR ANGLICUS.

BY ALEX. B. SHAW, M. D.

Sept. 8, '73, at 9 A. M., called to see Emma K., aged 13, of German parentage. She had been complaining of languor, sleeplessness and loss of appetite tor several days.

The evening of the 7th she had a slight chill followed by fever which continued all night, and when I saw her the following morning, the thermometer placed in the axilla indicated a temperature of 103. The tongue was covered with a white fur, face flushed, eyes slightly injected, bowels constipated, and pressure in either illiac region produced pain. She complained of headache and pain in the back of the neck and shoulders when moved. Ordered mercurial cathartic and small doses of pot. brom.

Sept. 9, 9 A. M. Temperature 103½; had two evacuations from the bowels, was troubled all night with severe cramps in the lower extremities, otherwise, same as yesterday.

6 P. M. Bowels moved again, has *tinnitus aurium*, temperature 100. Ordered quiniæ sulph gr. iij every three hours and discontinued pot. bromide as it seemed to nauseate.

Sept. 10, 9 A. M. Temperature 104. Intense pain in the head, great thirst, cramps aggravated; continued quinia.

6 P. M. Temperature 100½, skin moist, tongue still coated, with tingling sensation in the hands and feet as though they were asleep.

Sept. 11, 9 A. M. Found patient sweating profusely, and learned from the nurse that she had begun perspiring quite freely about 9:30 the evening before. The temperature was 95 in the axilla, but under the tongue the mercury rose to 99½. Cramps gone. Continued quinia, alternating it with acid sulph. aromat, largely diluted wito water.

2 P. M. Condition the same.

8 P. M. Perspiration not so profuse, patient annoyed very much with a sensation of prickling in the skin of the face, neck and extremities. Temperature in the axilla 101, under the tongue 102½.

Sept 12, 9 A. M. Temperature under the tongue 99; breast, back and inside of thighs thickly studded with minute vesicles presenting a glistening appearance, very like drops of perspiration, and feeling quite hard to the finger. Still considerable perspiration. Ordered saline cathartic and continued acid drink.

2 P. M. Condition unchanged.

9 P. M. Temperature 99¼, otherwise condition much the same.

Sept. 13, 9 A. M. Temperature 98½.

9 P. M. Temperature 99, vesicles becoming opaque and larger, skin slightly moist.

Sept. 14 & 15. Condition the same.

Sept. 16. Vesicles disappearing quite rapidly and cuticle desquamating freely. Patient had a well marked chill this morning followed by a high fever lasting six or seven hours. Ordered quiniæ sulph. 6 grs. every three hours, till three doses are taken.

Sept. 16. Much prostrated, no return of the fever, had free epistaxis during the night, losing about 16 ounces of blood.

Sept. 17. Heavy chill and high febrile reaction, not followed, however, by much sweating. Ordered quiniæ sulph. as on the 16th.

From this time there was steady improvement. Patient gaining strength rapidly under small doses of iron and quinine.

As the foregoing is the only case of this character coming under my observation, I do not hazard an opinion regarding its etiology, but take pleasure in presenting to the profession the clinical phenomena as observed from an unprejudiced point of view; freely confessing that I did not diagnose the disease till the fifth day of observation.

Respecting this rare affection, dermatologists differ widely. Niemeyer looking upon it as a disease *sui generis*, while a vast majority of authors, especially the Germans, deny its existence as a peculiar disease. Hebra takes this view, and remarks that there is no febrile affection in which sudamina may not appear.

Original Lectures.

STRICTURE OF THE URETHRA.

SURGICAL CLINIC OF PROF. A. P. LANKFORD AT THE CITY HOSPITAL.

[Reported for the Record.]

Gentlemen:—Since there are a number of cases of stricture, illustrating almost every form of the disease, in my wards at present, I have thought proper to bring them before you this morning in succession, beginning with the simplest and mildest, and ending with a case of extravassation of urine, the result of closure of the urethra by the organization of repeated inflammatory exudations all along the canal for a distance of about two inches.

THE NATURE OF STRICTURE.

But before proceeding further, I must revert to a definition that I have often given, viz: What is stricture of the urethra? It may seem useless to repeat to you so often such fundamental points, but my experience as a teacher has impressed me with the belief that our errors in method are oftener in the opposite direction. You must be quite sure that you understand what is meant by stricture before you plunge into discussions of methods and theories of treatment.

It is, then, a deposit of lymph around the canal of the urethra at a given point or points, lessening its calibre and narrowing the stream or current of urine. It is *usually* the result of some chronic inflammation, and the seat being most commonly in the bulbous portion, the lymph is deposited in the submucous and vascular tissues, and after this lymph has existed some time, it contracts and forms fibrous bands more or less encircling the canal. Now, when these bands have been thus organized they are to be considered in the light of permanent adventitious tissue—once a stricture always a stricture, unless, in imitation, as it were, of that kindred formation, a scar, they gradually "wear out." That this is possible there is no doubt, for as Mr. Paget long ago so beautifully demonstrated in his surgical pathology there is always a tendency to the former state. But it is not probable, and deal with it as you may, it shall yet be reserved for you or some one else to encounter it again, and again, in the future. But I said that the most common seat of this lymphous exudation was the bulbous part of the urethra; that this is not always the case, you shall see illustrated in a patient I will soon bring before you. Inasmuch as the whole canal may be inflamed for weeks or months, a great portion of the sub-mucous tissues may become the seat of inflammatory organizable exudations—being most frequent, intervals between the strictures, while again it is continuous, destroying the integrity of the canal and, upon examination, imparting to the fingers the sense of a firm fibrous cord, while what was formerly a urethra has been converted into a sort of devious sinus, almost closed at some points, larger at others and with here and there lacunae or small pouches.

Another form is the congenital narrow external orifice, which barely permits the urine to escape.

Then there is the "traumatic stricture," which results from some injury—a fall upon the part, a kick, cut, gun shot wound, or violence inflicted with an instrument in awkward hands. In such cases the cicatrix involves the urethra, very often running transversely or diagonally right across it and nearly closing it.

And you will meet with such expressions in your text books as "inflammatory stricture" and "spasmodic strictures." Neither of these affections can be correctly considered in the light of strictures, and I do not propose to discuss them to-day. They are affections which sometime require catheterization for the relief of the patient, but often operative proceedures.

DIAGNOSIS.

I do not know what your feeling about the subject may be, but I can assure you that unless you pursue some method in your examination of patients you will often be deceived into treating patients who have no stricture, while you may dismiss others with the assurance that they are not so affected, leaving some rival brother to make a discovery that will not redound to your credit.

You will generally get the history of a chronic inflammation of the urethra, following upon which the patient has observed the stream of urine to be gradually growing smaller, when, after some exposure, or as the result of a fit of intoxication he has retention of urine. You attempt to pass an instrument and find the obstruction. Or the patient consults you before such an accident, and after getting the history of the case and seeing him pass urine to learn the size of the stream, you proceed to explore the canal with a bougie. The advice of Sir Henry Thompson as to the manner of doing this cannot be improved upon, i. e. do not begin with a small instrument, but select a medium size, say Nos. 8 or 9. This will show you the exact situation of the first obstruction. This learned, and you may take the next smallest number, and then the next, etc., until you get one small enough to pass the stricture. This accomplished and you know the exact calibre of the stricture, as well as its location. Hence, when you make the second attempt you know the number of instrument to begin with and can proceed with the dilatation, gradually increasing the size until you have attained the highest. But this, in passing, the method to be followed in making the diagnosis, is the point under consideration, and if we may sum up in one sentence the pith of the matter it is to get a correct history of any given case, so far as may be possible, note existing signs and conditions, and then by the aid of bougie or catheter demonstrate whether there be a stricture, and if so, its situation and character.

TREATMENT.

Reminding you that this is the merest outline, we will now pass over, in the same general and brief manner, some of the operative proceedures by which we attempt to relieve the patient, and, so far as may be, cure the stricture.

Dilatation.—The diagnosis settled, and the first question the surgeon asks himself is, would it be good practice to attempt the treatment of this case by dilatation or rather can it be so treated? If it can be answered in the affirmative, he at once dismisses all thought of a knife or any other contrivance apart from a set of well shaped bougies; for dilatation and "simple dilatation" is the rule when simple dilatation is practicable. I say simple dilatation, and emphasize the expression in contradistinction to two other methods of dilatation, both of which you have seen me practice, viz: "continuous dilatation" and "forcible dilatation." You know that by the "simple" method we begin with the largest instrument that we can get through the stricture, merely introduce and immediately withdraw it, the next time the next largest and so

on we continue until the largest has been reached. In continuous dilatation a catheter (not a bougie) is passed into the bladder, securely fastened and allowed to remain for about three or four days. I do not find it practicable to keep such an instrument thus fastened in the urethra and bladder for eight or ten days as recommended by Thompson and others, nor will you. The first is then removed and a second, about two sizes larger, takes its place for about the same period. (When these instruments are changed the bladder and urethra should be washed out with warm water to which a little borax and carbolic has been added; and this washing should be repeated when the second is removed. Indeed, it is highly beneficial in many cases to thus wash out the viscus every day, the solution being injected through the instrument already *in situ*). At the end of such a period of continuous dilatation you will generally be gratified by seeing a large instrument glide along and into the bladder with the utmost facility.

By forcible dilatation such an instrument as Mr. Thompson's is insinuated through the obstruction, when its blades are slowly but forcibly separated by turning a screw in the handle. It is not intended to tear the fibres of the stricture, but merely to stretch or over-distend them. The screw is then reversed, the blades brought together and withdrawn. And this proceedure is repeated about once every forty-eight hours, until the desired point is attained.

And, finally, we may elect to cut through the constricting bands, and there are several ways of doing this; for instance, we may pass through an instrument like a bougie armed with a concealed blade, when it is projected, drawn outward through the stricture, again sheathed and withdrawn. A catheter or bougie is then passed, and this is repeated from time to time until the patient is considered well. Another method is to cut from without inwards; and lastly we have the old operation, or external urethrotomy. By this plan the surgeon reaches the stricture by cutting through the perineum, and having previously passed a grooved staff into the bladder, he lodges the point of the knife in the groove of the staff and then pushes it through the stricture. This is now but rarely performed, and so far as my own practice is concerned I never perform it. In certain cases I cut down upon the obstruction through the perineum, but never in permeable stricture. If anything, even a filiform whalebone director can be passed into the bladder, the surgeon should deal with the obstruction successfully without any external cutting whatever.

CUTTING VS. FORCIBLE DILATATION.

Now, gentlemen, even confining ourselves to this brief summary of operative proceedures, and ignoring all medicinal applications and a much vaunted modern remedy, viz: electrolysis, you see that the surgeon has at his command a rich array of resources. And just here, I fear, is the point at which you are destined to become confused. Let us then be very explicit and commital. You are not to subject any given case to one method and, if this fails, try another and another, etc., almost *ad infinitum*, your boldness and activity being only limited by the endurance of either yourself or the patient. But you must decide according to the situation and character of the obstruction. Repeating that you should always have first in your mind "simple dilatation," and that "continuous dilatation" is mostly indicated when when you have succeeded in passing the catheter in retention, or when great expedition is very desirable, I now tell you that if you find it necessary to give up all idea of simple or continous dilatation, for either "forcible dilatation" or the knife, that you are to exercise still greater care in deciding between the two last named proceedures. Cutting will not do for all, nor will over-distension or laceration do for all. And here anatomy comes to your aid, guiding you to formulate a rule which, I grant, in advance will be open to exceptions, but these shall not be sufficiently numerous to practically invalidate it. This is, that all strictures near the orifice, say within two and one-half inches, should be cut, while those situated deeper should be treated with the dilator. The contra-indication to using the knife farther down than this, is, that by so doing you are liable to seriously injure the prodigal arrangement of vascular and erectile tissue which constitutes the spongy body. The dilator is not open to such objection. If, then, there is a single stricture situated in this portion of the canal, the best instrument is Thompson's dilator, because the surgeon has the instrument entirely under control and can distend *gradually*, and can rupture the stricture or not, as may seem to him best. If there are three or four, Holts is the best, for the reason that he can deal with all of them surely at one stroke of the plunger.

CASES.

I am now happy, gentlemen, to be able to show you the results of all these plans which we have just been considering, as well as demonstrate to you that there are cases which set at nought all rules of ordinary proceedure. And it must be the more satisfactory to you since you have seen me operate upon all save two of them, and you have, from time to time, seen how they progressed. And surely you have become satisfied ere this, that in this manner alone can you hope to understand the practical adaptation of principles at the bedside, whether in medicine or surgery. Such are the grand opportunities which the schools of medicine in great cities now offer to the student.

Case 1st, Michael G., 33 years of age, a native of Ireland, single and a laborer by occupation. Michael suffered from a gonorrhœa, now about thirteen years ago, according to his story. It was a long time, maybe eighteen months, before he thought himself well, and then, to use his own language, "another trouble came on me. I could hardly make my water, the stream got less and less, and then it only came away in drops," etc. And then he called upon a physician who treated him for some time, and then another, and another as usual. He called upon me three months ago, and after a good deal of trouble I succeeded in passing a number two solid instrument. During the treatment he was attacked with a bronchitis for which he was admitted to this hospital. Since his recovery I have resumed the treatment. We can now, as you see here (introducing a bougie) pass with great ease a no 12 English gauge, and what is better Michael can perform the same operation as dextrously as I can. So we will discharge him with the injunction that he pass this instrument at least once a week now and forever more. This man's case, gentlemen, is substantially a repetition of a majority of those you will see, and the treatment as you see has been most satisfactory. "Simple dilatation" has been the only treatment.

Case No. 2, James H., a native of Montgomery county, Mo., is 28 years old, single and a farmer.

Says he always had trouble in making water; that since he has been a man he has observed that it has been increasing, and in addition his prepuce has always been tightly contracted about the glans, making it impossible to retract it. Upon examination I found that he had phymosis, and that the external orifice of the urethra would barely admit the point of the smallest silver probe. And the probe was only fairly entered when it struck some rough, solid body which I recognized to be calculous concretions. I slit up the prepuce for a little distance and discovered that it was adherent to the glans. To dissect it away was a tedious and prolonged operation, and when this was completed I passed a grooved probe into the urethra, but again met with the concretions, and a little farther on got the point lodged in some lacunæ that effectually stopped it. Passing a small knife along the groove of the probe the constriction was cut, and the concretions removed with a small scoop. The large fossa was filled with them. I then attempted to pass a bougie and discovered a stricture about two inches from the orifice, and passing an ordinary bistoury cache through it, cut it and have since practiced "simple dilatation" with ordinary French catheters, until, as you now see, this instrument, No. 16, passes with ease. He is well and will go to his home feeling very happy. Yesterday, four weeks ago, was the first time that he ever saw his glans penis, while he passes as full a stream as the best of you.

Case 3, James McC., a native of the "green isle," single and 46 years of age, and yet boasts that he has been always virtuous. Granting this he would seem to furnish an illustration contradictory to the maxim, "be virtuous, and you will be happy," for when he first presented himself to me, one month ago, the largest stream of urine he could pass was about the size of this stylet, and this state of things, he says, has existed for twenty-five years, during which time he has had several attacks of retention. His trouble, it would seem, dates from an accident in which he fell from a height of several feet astride a plank. He has had difficulty in passing his urine ever since. I think, then, that we are correct in calling this a traumatic stricture. Examination showed the obstruction to be in the bulbous portion, and passing a filiform whalebone director through it, and into the bladder (nothing larger would pass) a Thompson dilator was introduced upon the director and the stricture was lacerated. It has been quite easy ever since to pass large sized instruments, and he now does so himself with entire ease. He will be discharged to-morrow.

Case 4, Hermann F., a native of Germany, is 36 years old, married and a laborer. The history he gives of his case leaves us a little uncertain as to the cause of his stricture, but certain it is that he has had a most inveterate one. No physician or surgeon who has examined him has been able to pass it with any contrivance whatever, while the urine has barely dribbled from him in drops. It was clear that if he was not speedily relieved that under the first exposure he would have retention with its accompanying dangers. The stricture was deep down near the sub-pubic ligament, and yet I decided to make a way through it with a knife. So selecting this instrument, which, as you see, was designed for a sort of hystertome, I devoted it to a new duty, and passing it down to the stricture carefully guided it by the left fore-finger in the rectum, and thumb upon the perineum until feeling sure that the point was directed aright, projected the blade and carefully pushing it through the obstruction, withdrew the blade and pushed the whole right into the bladder with a facility which you doubtless remember astonished some of our visitors. Since that operation we have experienced no difficulty in dealing with the case, and he is now passing a No. 10 catheter. This case is not brought before you to commend this proceedure to you as worthy of your imitation, but to illustrate the variety of difficulties that we must encounter, taxing our ingenuity and self-reliance to the utmost.

Case 5, Jean F., a native of Alsace, a laborer, is single and 30 years of age. Confesses that he has suffered from repeated attacks of gonorrhœa, and, in fact, that he has been scarcely free of some discharge from the time he was eighteen years of age until he was admitted to St. John's hospital for retention. He was partially relieved of the retention by full doses of opium, hip baths, etc., when I made a careful exploration, only to be entirely baffled in all attempts to pass any instrument farther into the urethra than about two inches. Passing my finger along over the course of the urethra, it had the feeling as deep as I could feel of a hard cord about the size of my little finger. He had several attacks of retention of which we could only relieve him by full—very full doses of opium, and his case finally became so urgent that we decided to attempt to reach the bladder by a perineal operation rather than see him die from the effects of extravassation. So, as you well remember, I did such an operation with the aid of several prominent gentlemen last December. Placing him in the lithotomy position, I pushed a number ten silver catheter down against the obstruction and entrusted it to Prof. Maughs with the request that he keep it firmly pressing against it. I then made a semilunar cut around the anus and continued the dissection until I could feel the point of the catheter through the urethra. Carefully guiding a narrow blade upon the back of my fore-finger, I divided the urethra upon the end of the catheter; the catheter then being withdrawn a little, I tried to get a small grooved director into the opening beyond, but it would not pass. Re-introducing the knife into the same opening it had made, I extended the incision about half an inch when the urine gushed out, and showed us that we had found a larger canal, at least, than the first part of the obstruction. After repeated efforts, assisted by Drs. Prewett, Todd and others, we finally succeeded in getting a No. 2 gum catheter into the incision, and then into the bladder. With this for a guide I then pushed the silver catheter held by Prof. Maughs on into the bladder and tied it in. From this time on we treated him by continuous dilatation for two weeks, and since then by the simple method. There was high inflammatory reaction following the operation, and he has suffered much, but as I will now make him pass a No. 12 in your presence, and as you see what a fat and jolly air he has, you must agree that this is a great triumph in a most unpromising case. You will rarely meet with such a case, and when you do, as I have explained, it is always the result of prolonged inflammation, filthy practices and neglect. I surely hope never to meet with another like this. Had we not kept the catheters tied in after the operation he would have had a perineal fistula.

Case 6, James B., is a man you have often seen before, and heard his history. It is, as you remember, stricture, resulting from chronic gonorrhœal

inflammation. There were, in his case, at least three distinct obstructions. He had been treated in New Orleans some years ago by the distinguished Dr. Stone, now no more, by "simple dilatation," and was dismissed as well. But entirely neglecting to pass the instrument, his old malady was soon upon him again, and he sought relief with us. After a few trials of the common bougie, I determined to try Mr. Holt's dilator, introduced it, and at one stroke of the largest plunger ruptured them all. We have since been passing a French elastic catheter of large size, and as he can now pass it himself and seems well, we will discharge him. About one year ago I operated upon a youth of sixteen years who had an impermeable stricture in a similar manner. He had retention of urine, and Dr. R. S. Anderson, of the Quarantine Hospital, had practiced recto-vesical paracentesis, leaving the trochar tied in for about two weeks; and even at the end of this long time, no instrument could be passed. Such an operation then seemed imperative since he could not conclude to wear the instrument all his life. It had a successful termination. I also published the history of another case of the kind in the August number of the St. Louis *Medical Archives* for 1871. These three cases, and one published by Dr. Gross in the *Medical Times* of Philadelphia for, I believe, May, 1871, are the only operations of the kind that have come under my observation. I may never meet with another, for they are certainly out of order. Should you meet with such a case, I know of no better plan to suggest to you than the one described and which we have practiced in these cases.

We will close this subject by showing two cases of extravassation, or rather showing the effect of extravassation. You see that the pernieum of this man (Koates) is literally seive-like with fistulous openings, while he looks pale and wasted. When he attempts to urinate, more than half the urine passes out through these openings. You see that we keep a catheter tied in the bladder, which drains off all the urine as fast as it accumulates, while these sinuses are injected about twice daily with a carbolic acid solution.

STATISTICS.

As to the frequency of strictures, it may be stated to be a very rare affection in rural districts, but still a man in full practice will now and then meet with a case and must for a time treat it. But quite a number of my private cases have been sent to me by country practitioners. In the city such affections are sufficiently common. Although my experience has been short compared with that of some of our surgeons, I have yet treated a great many cases, how many it is impossible to say. With regard to operations with the knife and by forcible dilatation or rupture, I am in a position to be more accurate. I have used the dilator twenty-five times and the knife eighteen. Holt's has been the instrument preferred in nine cases and Thompson's in sixteen; and all the cases have recovered. One case of external urethrotomy or perineal section was followed by pelvie cellutitis and abscess which pointed above the pubis. He made a slow but complete recovery. There were no others complicated seriously enough to deserve mention. In all cases it is necessary to occasionaily pass an instrument after operating, and you must teach the patient to do this for himself after he is discharged, otherwise his malady will return.

CONCLUSION.

In concluding this lecture let me urge upon you the absolute importance of correct diagnosis, and this done, to treat every case upon its merits. Don't become the especial champions of any single method or instrument to the exclusion of all others, and if by studious attention and ingenuity you are ever able (as I hope some of you will be) to improve upon those now in use or supersede them altogether, I shall take great pleasure in being one of the heralds of your worth. But you must fully appreciate that this department of surgery is not for the superficial routinist, but the rational, industrious, thinking practitioner.

Hospital Reports.

DEATH FROM BURSTING OF ANEURISM OF ABDOMINAL AORTA.

[Reported for the Record.]

William S., a Scotchman, forty years old and a laborer by occupation, entered the city Hospital May 21, at 8:45 A. M., was examined while yet on the stretcher, and pronounced at once, to be in a weakened condition; hence an attempt at diagnosis was not made. He died at 9:15 same morning.

But a very incomplete history of the patient was obtained, which was substantially as follows:

Health had been very bad for a year or so, had suffered much from rheumatism (so called) in the back for some time, but don't know how long, and was a very hard drinker—drank to excess whenever an opportunity presented itself, but had not been drinking the morning of his death. On the morning of the 21st. of May, patient arose apparently in his usual health and remained so until about half past seven, when he was seen to fall from his seat to the floor, not being able to pick himself up; or attempting to speak. About an hour later, however, when he first entered the Hospital he did speak a few words.

Post mortem examination revealed the following interesting state of things: The lungs were collapsed to half their normal dimensions, but there were no pleuritic adhesions, neither was there any congestion or œdema of the lungs. Next, upon examining the heart there was found externally, some evidence of there having been at some time a slight pericarditis, but no acute trouble. Upon cutting open the organ, there was found no blood at all in the ventricles, while one of the valves guarding the aortic opening was indurated and thickened, presenting some small vegetations upon its margin. Upon entering the abdominal cavity, the liver was found to be very much smaller than normal, and after examination pronounced the contracted or *cirrhotic liver*. The spleen, upon the contrary, was enlarged, but very pulpy and easily torn. So far, the immediate cause of death had not yet been discovered; but passing the hand down for the left kidney it was found immersed in blood, which had been extravassated in a large quantity covreing the whole left side of the abdomen. In reaching for the extravassation there was found the remains of an aneurismal tumor, situated upon the left side of the aorta, just where the renal arteries are given off, and below the superior mesenteric. The tumor had bursted, emptying its contents into the left abdominal region. Upon examining the remains of the tumor it was found to have been very large, resting upon and attached to

the left side of the lumber vertebræ as low down as the third, and from its pressure upon the 2d & 3d lumber vertebræ, it had caused interstitial absorption, which was readily detected by digital examination.

The bodies of the vertebræ above mentioned, seemed to form the posterior wall of the tumor, while the true wall of the sack appeared rather thin, showing that very little fibrine had been organized about its inner surface, and it was attached firmly to the bodies of the vertebræ. The aneurism upon the aorta was formed by a rupture, of at least, its two inner coats extending half way the circumference of the vessel, leaving the margins of the ruptured coats (when examined) perfectly smooth and rounded, and an inch or more apart.

Upon making section of the aorta just below the rupture, it was found difficult to insinuate the end of the little finger, while at a section above, the thumb could readily be thrust down its calibre.

It is much to be regretted that some history of the aneurism could not be obtained, as it would have been greatly to its clinical interest. The specimen with a portion of the aorta from both above and below the rupture, also first, second and third lumbar vertebræ, attached, were removed and put in alcohol, and can be seen at any time in City Hospital Museum. T. E. H.

CASE OF LUMBAR ABSCESS.

[Reported for the RECORD.]

Adolph Scheff, aged 24, native of Germany, by occupation a cook, was admitted to City Hospital March 23d, 1873. States that prior to four months before entering hospital his general health was excellent. At that time, says that he strained his back while lifting barrels of flour and mackerel. While exerting himself strongly at this occupation he suddenly felt a "stitch" in his back. Pain followed immediately, and continued constantly throughout his illness, varying only in intensity. He however continued at light work two months after reception of injury, when he was compelled to desist and take to his bed. Patient was sent to Quarantine Hospital where blisters were applied to spine, but he gradually grew worse. When he was admitted to City Hospital there was no paralysis nor loss of function of lower limbs, but he was unable to stand long at a time. Suffered constant pain in lumbar region, and occasionally in hypogastric region, especially during defecation and micturitian. At this time a slight prominence of spinous processes of lumbar vertebræ could be detected. Patient has always been a temperate man, and nothing abnormal was detected relative to vital organs, as heart, lungs, etc. No sugar nor albumen existed in urine. Has suffered from deafness for some years, resulting from perforation of membrane.

The patient remained in about this condition through the summer months, and on Sept. 24th, Dr. Prewitt makes these notes on the case: "Tenderness at point of curvature of spine has diminished very much, but there is still soreness on percussion or pressure of spinous processes at seat of curvature. On examination two or three weeks since over right lumbar region anteriorly, a tumor of small size could be felt, which seemed movable. Somewhat tender. Too low for kidney unless displaced, and not sufficiently painful for psoas abscess upon raising the thigh and moving it."

The tumor increased in size and still seems movable, and on Oct. 11th a fullness presented posteriorly about the interior border of the Quadratus Lumborum muscle, which seemed to be a part of the tumor felt in front. On Oct. 15th the abscess pointed distinctly posteriorly, and was opened by Dr. Hodgen in the afternoon. An attempt was made with the aspirator, but success was only partial. A free incision was resorted to, and a quantity of pus and blood escaped. The wound was tented with lint, being dressed twice a day.

From this time until the last of the year the patient slowly, but steadily, declined. Had alternate rigors and fever, with profuse and colliquative sweats. The pulse and temperature would run high and be controlled only by the free use of quinine and iron. The abscess discharged itself freely of a thin offensive pus. Had pain in hips and about the region of nipples, with great flatulence and constipation of bowels. Considerable difficulty in micturating. Strained greatly, and had to wait for some minutes before the urine flowed, and then complained of its burning him. Appetite very poor, but began to improve slightly as winter approached. He continued to waste away, however, from the profuse suppuration of the abscess—his only occupation and aim in life seeming to be to have an evacuation of the bowels every day, which laudable object he accomplished by the alternate use of purgatives and enemata. The New Year brought no good to the poor patient, who had now been unable to rise from his bed without assistance for some months. His appetite improved a little through the winter, but was capricious and unreliable.

One year from the date of his admission *i. e.* March 27th, 1874, found him reduced almost to a skeleton. The profuse suppurative drain still continuing, with exhaustive night sweats, pain, etc. In consequence of his having been exposed to a draft of air he was seized with a violent lancinating pain in right breast near nipple. Friction sound could be heard, and an attempt at a deep inspiration caused intense pain. Dry cups were applied with great relief to patient, followed by warm flax seed poultices. Patient declined rapidly after this, though he had successive attacks of the intense pain in chest, with great difficulty of breathing, cough, etc. Lay mostly on back, with right hip elevated, consequently tilting pelvis to the left.

The patient, the heritage of many doctors, died quietly on the evening of May 6th, 1874. The refrain of Capt. Jack Bunsby might well be applied to his case, viz: "Affliction sore, long time he bore, physicians were in vain," inasmuch he was under the care of at least a half dozen, he securing fresh medical advice every time the resident physicians changed wards.

An antopsy was held on the day following his demise, at 12 o'clock, M. The body was emaciated to the last degree, the osseous and integumentary structures apparently forming the bulk of the cadaver. On opening the thoracic cavity pleuritic adhesions were found on anterior surface of right lung, with extensive tuberculosis of both lungs, though but little softening had taken place. The heart was rather small, firm and compact in structure, without valvular or other lesions. Liver and spleen appeared normal, but the kidneys presented points of great pathological interest. The left one was greatly enlarged, measuring in length about six inches, by three in width and over two in thickness. It would weigh probably not less than three

pounds, and seemed to have undergone cystic degeneration as fluctuation could be detected throughout its length. It was not opened, so the character of the fluid was not ascertained. The right kidney was somewhat affected in a similar way, though not to the same extent. It was slightly above the normal size, and a small cyst, found on it, was opened, from which escaped a yellowish curdy fluid.

The examination of the bodies of the lumbar vertebræ, proved very interesting. The external opening was about an inch above the border of ilium, and two inches to the right of the spinal column. Into this opening the finger could be readily introduced, and the necrotic condition of the bodies of the lower lumbar vertebræ readily determined. The pus had followed the course of the psoas muscles, dissecting their sheath, softening and discoloring the muscular structure, and laying bare the anterior crural nerve to the point of its escape from the pelvis. Owing to the usual position in which patient lay, which was mentioned before, the pus had burrowed no further than Pouparts ligament, the structure of the psoas muscles being intact beyond that point.

The brain was examined and found to be above the average in amount of gray matter and in fineness of convolutions. Was necessarily very anæmic. The calvarium was remarkable for its extreme tenuity, being quite translucent in several places.

Extracts from Current Medical Literature.

SUBCUTANEOUS INJECTION OF STRYCHNIA AS A REMEDIAL AGENT IN AMAUROSIS AND AMBLYOPIA.

"A paper read before the South Carolina Medical Association."

BY PROF. FRANCIS L. PARKER, M. D.

After quite a lenghtly review of the experiments of others with Strychina subcutaneously injected as a remedy in certain obscure diseases of the Retina and Optic Discs; the writer gives the histories and results of treatment of Eleven cases occuring in his own practice, and closes his valuable paper with the following practical observations.

Now let us see the result in these twenty-two cases, and observe: 1st. The averaged number of injections used, before the beneficial influence of strychnia was manifested. 2d. The quantity of strychnia injected before visual improvement was noticed. 3d. The duration of its tonic influence. 4th. Tne amount of increased vision. 5th. The class of cases in which this remedial agent was beneficial. 6th. The class of cases in which it failed entirely.

Of the eleven cases nnder my own observation, *six* were benefited, and *five* failed. Of the six benefited, *four* were restored to their former vision; *two* were improved and had useful vision. Of the six cases, marked increased visual power was observed on the *third* day, and after the *third* injection.

In *six* cases the quantity of strychnia injected before increased visual powers was manifested, was from 1-40 to 1-10 of a grain. In three of the five cases in which no improvements took place, 2 *grains* were used during the month the patients were nnder treatment; in the remaining two cases 1 *grain* was used in the course of the fortnight without any benefit.

The cases of Frémineau and Sämann improved rapidly from the *first* injection. Of the five cases specified by Professor Nägel, three improved on the *fourth* day; one on the *second*; one on the *ninth* day. The quantity of strychnia used varied from 1-20 to 1-9 of a grain. Werner's case was improved on the *fourth* day; 1-20 of a grain was employed. Professor Chisolm's case was improved on the *fourth* day; 1-12 of a grain having been injected. In Dr. Thomas Kennard's two cases of failure, he commenced with 1-60 of a grain, and increased it to ¼ of a grain, daily, without any improvement or without any bad effects, for a month.

Of the six cases under my observation, reported as relieved, the treatment varied from two weeks to a month. In these *six* the treatment has been discontinued from *two to fifteen* months, and the patients are still doing well. Professor Nägel speaks of some of his cases as permanent cures; some are progressing favorably after the lapse of several months, and one was doing well after the lapse of five years.

Of the twenty-two cases, success in a greater or less degree was observed in *fifteen* instances; in *seven* it was unsuccessful. Of these *fifteen* successful cases, ten cases were able to read ordinary print almost as well as ever; in *five* visions was assisted considerably, but not to the extent of enabling the patients to read.

Of these twenty-two cases I have on'y the ophthalmoscopic appearances of *eleven* which came under my own observations; of these *eleven*, *five* are reported as failures; in one case (Case I.) there was partial atrophy of the optic disc, with partial obliteration of the retinal arteries and general anaemia of the retina; in another (Case II.)there was amaurosis from anæmia of the retina and optic papilla, with small tortuous retinal vessels, the result of an attact of sunstroke and amblyopia potarum; in another (Case VII.) there was complete atrophy of the disc, with general pigmentation of the retina and absence of all retinal vessels; in another [Case X.] there was extensive retino-choroidal diseases with incipient atrophy of the optic dises in both eyes; in another [Case IX.] the ophthalmoscopic observation was almost negative—there was anæmia of the disc and retina, the vessels were small but normally distributed. In these twenty-two cases the alterative and tonic remedies, with strychnia internally, had failed to effect any practical good.

It will thus be seen that my experience is limited in these affections, and that I have drawn from other sources with a view of eliciting information upon this important subject. The chief difficulty in arriving at a satisfactory estimate of the true merits of this remedy given by local injection, as opposed to its internal administration, in the same class of cases, is due to the fact, that the successes are invariably reported, whilst the failures are left unrecorded, and as long as physicians and oculists continue to adhere to this doubtful method of relating their experience and investigations, so long will the efficacy of certain remedies as remedial agents be undetermined.

It is impossible to lay down specific rules in the treatment of amaurosis and amblyopic affections, but so far as my own investigation, compared with a careful deduction from the observations of others are concerned, I have arrived at the following conclusions:

First. The local injection of strychnia in amaurosis and Amblyopic affections is not applicable to cases arising from *existiug or recent inflamation* of the optic nerve and retina; the ophthalmoscope is essential in determining the nature of the affection, whether arising from *functional* derangement, or from a *mild* or *severe* form of organic disease.

Second. In cases of defective vision arising from *functional* derangement, sight is *generally promptly restored* by the local injection of strychnia; in the *milder forms* of organic disease, vision is generally promptly restored, or it may be simply benefited, but the result cannot be predicted by the ophthalmoscope; the treatment is entirely experimental; *in the advanced cases* of organic disease the remedy is useless.

Third. If any practical benefit is to be derived from the local injection of strychnia *in functional or mild organic cases* the injections being given daily, it will be evinced between the *first and ninth injection,* most frequently between the *first and fourth,* or between the *second and ninth day*; if manifest improvement does not take place in this time, it is useless to continue the remedy.

Fourth. The quantity of strychnia used in the successful cases varies from 1-40 to 1-5 of a grain; the injection should be continued daily so long as sight continues to improve; when the maximum amonnt of sight is attained [if only after several injections] it is unnecessary to continue the remedy.

Fifth. The tonic influence of strychnia in the successful cases continues for many months; in numerous cases it has lasted for one and two years; it has been known to last five years, and by some observers the cures are regarded permanent.

Sixth. The cases which are partially benefited by this remedy, are those in which the ophthalmoscopic revelations are negative [the functional cases]; those in which the ophthalmoscope reveals anæmia of the disc and retina with a normal distribution of vessels; or those in which only commencing atrophy of the disc with *limited disease of the retina* or retina and choroid are present.

Seventh. In *advanced* cases, involving the disc, retina, and retinal vessels, the injection of strychnia is practically useless.

NOTE.—Since reading this paper before the Association, I have added four cases, which were under treatment at the time of the meeting. I have also seen since the adjournment of the Association, an interesting article in the American Journal of Medical Science, for April, 1873, by Dr. Charles S. Bull, of New York, on the treatment of various forms of amblyopia and amaurosis.

His conclusion upon the value of strychnia as a local remedy in these diseases, founded upon twenty-one cases reported by Professor Nägel, and twenty-four cases treated by himself, coincide with my own.

In looking over these cases, *forty-five* in all, any one will see that the impairment of vision occured from functional and organic causes. The *functional* cases, as a rule, were promptly relieved, after a few injections of strychnia, the quantity varying from 1-60 to 1-5 of a grain. The beneficial influence was observed after the *first, second, third or fourth* injection, and good vision was restored. Many of the cases passed from observation at once, and the permanent influence of the remedy is not positively stated; but from the cases which were followed up, it is fair to conclude that the good effects of the remedy lasted a year or for a much longer period. In the *organic* cases, the result was not so satisfactory; in the *mild* cases, visions was restored or improved [about one-third of the whole number] by the treatment; the improvement taking place, as a rule, between the *first* and the *ninth* injection; the quantity of strychnine nsed varying from 1-60 to ¼ of a grain. The predictions based upon ophthalmoscopic revelations, except in the *milder* forms of organic disease, could not be relied on, the treatment being regarded entirely experimental. In the *severe* forms of organic disease, based upon ophthalmoscopic observations, the treatment failed entirely.

Monthly Abstract of the Medical Sciences.

MR. I. FARRAR, in the *Lancet* recommends the chloride of ammonium in some kinds of functional deafness.

NASAL CATARRH.—Prof. D. Hayes Agnew in a clinical lecture at the University, on nasal catarrh, reports two cures by the use of galvano-faradization, which had resolutely defied all other measures.

OXYGEN GAS AS A REMEDY IN DISEASE.—Prof. J. L. Cabell, M. D., Univ., Va., regards oxygen gas as a most valuable agent in all diseases involving defective respiration, and as a tonic to improve assimilation in chronic diseases.—*Va. Med. Monthly, April,* 1873.

HOW TO REMOVE ADHESIVE PLASTERS.—The portion of the plaster which is left adhering to the skin, may be quickly and completely removed by the use of oil of Turpentine and Sweet oil Use a little more than half Turpentine. This compound carefully rubbed over the parts with a bit of cloth or sponge, and then washed off with warm soap-suds, will leave the surface as clean as nature ever intended.

BROMIDE OF AMMONIUM IN CATAMENIAL EXCESSES.—J K. Black, M. D., of Newark, O., strongly recommends the use of this salt in various forms in uterine derangements accompanied by excessive and painful menstruation; especially in those cases where there exist disturbances of the vaso-motor and sympathetic nerves. An essential rule in the administration of this remedy is, that its use shall precede the expected period by at least ten days.—*Lancet and Observer, May,* 1874

BONE AND SKIN GRAFTING. — M. Howse, recommends in cases where suitable grafts cannot be obtained from human sources, to use the mucous membrane from the lips of guinea-pigs or rabbits; he has succeeded in such cases, and advises that rabbits fresh from the country pastures be selected. Not only have skin grafts from animals succeeded, but M. Reverdin gives an illustration of the case of a Russian gentleman from

whose eranium a Tartar had sliced a piece by a sabre cut; the loss was supplied by a fresh piece from the skull of a dog, and the graft succeeded completely.—*L'Union Medicale—The Clinic.*

ESMARCK'S OPERATION IN PHYMOSIS.—Asa Horer, M. D., of Dubuque, Iowa, writes to the CLINIC, "I have lately had two cases of phymosis in adults—one complicated with adhesion of prepuce to the inferior part of the glans, in which the Esmarck method was adopted. A strip of thin rubber 1¼ inches wide, was firmly applied along the whole length of the penis except the glans; the rubber narrowing itself by extension to ⅓ of an inch at each turn. The end was secured by a small elastic ring. The operation was performed entirely bloodless, excepting the emptying of the veins unsevered. Both cases made a speedy recovery. The compression was kept on about 20 minutes.—*The Clinic, May 16th,* 1874.

WM. READ, M. D., of Boston, Mass, in an article on Cerebro-Spinal Meningitis calls attention to a hitherto unnoticed symptoms in this disease—a peculiar irregularity of the pulse, he regards as diagnostic. "In some cases, both the rhythm and the force of the beat is entirely destroyed. I have described it in one case as like the ticking of a clock when the pendulum swings several times ineffectually, and then giving a full beat, starts along for a while, to again go through the same disturbance. At other times we find the pulse, while beating very fast indeed, suddenly drop to a much lower rate, with no regularity in the alternation, but still persisting throughout the disease. Then again we find, in the same patient, periods, often of hours duration, during which the pulse will intermit at longer or shorter intervals, all of these conditions appear to outlast apparent convalesence, for they are brought back by exercise or fatigue, after the patient has regained strength and seeming health." Dr. Read regards ergotine and belladonna as invaluable remedies in the treatment of this affection.—*Med. and Surg. Reporter, May 16th,* 1874.

BILLROTH ON THE EXTIRPATION OF EXTENSIVE CARCINOMATOUS GROWTHS OF THE TONGUE FROM THE REGIO SUPRA-HYOIDES.—Billroth, in the case of circumscribed growths of the tongue extending from the mouth, especially those reaching far backwards, found the space insufficient for the operation of extirpatation, either with the ecraseur, galvano caustic, or the knife, even after sawing through the symphisis of the superior maxillary bone or splitting off the cheek. He therefore selected a method introduced by Cloquet, followed by Regnoli, not being acquainted, however, with the operations of these surgeons.

After the mouth of the patient has been cleansed with the greatest possible care for several days, a transverse incision 5-6 cm. long is made, close to the lower margin of the inferior maxillary down to the bone, its centre corresponding with the middle of the chin. From this two lengitudinal incisions 3 cm. long passing through the integument and Platysma Myoides, are made on both sides almost directly downwards. From the transverse incision, the periosteum and the muscles are separated and the cavity of the mouth opened, and then as far as necessary, the side incisions are carried into the mouth. The tongue is then pulled out from below, and all that is diseased, (especially the lymphatic glands) are removed from the side incisions.

The transverse incision is then completely united, also the front part of the side cuts. The mucous membrane of the stump of the tongue is pulled out to the side and fastened with sutures in the inferior angle of the side cut, if that is possible, without partially twisting the epiglottis or larynx. Swallowing is thereby facilitated, and drainage of the secretions promoted. During the after treatment, the patient remains in half sitting posture, head inclined forward. The patient is fed through a stomach tube for three weeks. Billroth has performed nine operations of this kind, Czermy one. Of these ten patients six recovered, three died of diptheria, one of pyæmia. — *Centralblatt fur Chirurgie, No.* 1.

BLUE PUS.—It is well known that pus, and the dressings of neglected wounds, sometimes show a blue color. The *American Journal of the Medical Sciences* contains an article on this subject condensed from the *Medical Times and Gazette,* and one from the *Archives Gen. de Med.* This blue color of pus may become epidemic, as was the case in M. Gosselin's wards in the Charite at Paris. Cases are also on record in which the normal secretions, as sweat, milk, and urine, have been of this color. Two sources for the color are indicated: one, the hæmoglobin; the other, the indican of the urine. Hæmoglobin, effused, assumes the varying colors seen in a bruise; in an old clot it becomes hæmatoidin, identical with the red coloring matter of the bile. The action of nitric acid, which is a process of oxidation, produces a blue tint in the bile. Perhaps a similar oxidation of hæmoglobin gives rise to the blue of the secretion, or the pus.

Various theories have been advanced to explain the blue coloring of the dressing wounds. One, favored by Lucke, is that it is due to vibrios. [Our readers will bear in mind the theory that all decomposition is caused by fungi, or other microscopic organisms.] This theory of the vibrios would explain the epidemics, if we might so call them, which occur where there is a neglect of cleanliness, in a hot, moist weather.

A blue coloring matter, called pyocyanine, has been isolated from blue pus, which resembles indican, a blue coloring matter, occurring as a normal constituent of urine, and probably of the blood also. This indican may be the source of the blue color of the pus and secretion.

The Archives de Med. considers the blue color to be of three kinds: 1st. The coloration resulting from the modification of certain humors—or true blue coloration; 2d. Coloration due to fungi—false blue coloration; 3d. Coloration due to a substance still unknown—false blue suppuration. The name *cyanchorse* is proposed for the last. It commences and ceases suddenly, not only where there is a wound, but where the parts are sound. Its duration is variable. It produces no modification in the local condition of the wound, or the general health of the patient. Its progress is similar to that of erysipelas. It is sometimes epidemic. It occurs most frequently when the atmosphere is moist and warm and contains ozone, and during storms. Its presence is a favorable prognostic.—*Med. Examiner.*

DR. KARL ERNST BOCK, Prof. of Pathological Anatomy, at Leipsic, died at Wiesbaden Feb. 19, 1874, in the 65th year of his age.

Editorial.

MEDICAL MANAGEMENT OF ST. LOUIS CITY HOSPITAL.

It is customary and right for the secular press to criticise public men and the management of public institutions. If the critics are informed and honestly do their work, they are the medium of correct information to the tax payers.. If one or both of these conditions are wanting, great injustice is done, and often great injury inflicted upon the public interests. We are induced to make these remarks by the course pursued by at least two of our city dailies, with regard to the change in the medical management of the city Hospital. We give it as our unqualified and unsolicited opinion that it is presumption for an average political scribbler, who for his daily bread and butter, daily grinds out his prescribed number of lines, to devote any number of these lines to matters which it is the peculiar and especial province of professional men to pass upon. Take, for instance, the subject in hand.

The medical administration of the hospital has been planned and organized by men who almost grew up in the walls of such institutions; who were educated in them, and have since served them officially for years and years, whilst, with great probability, we may infer that their critics are likely to know very little apart from what they may have learned during a possible residence in the charity ward of some such institutions, or obtained second hand from some professional sore-head and growler.

Had these gentlemen critics waited until actual experience demonstrated the impracticability of the proposed plan, they would have then been entitled to comment upon it adversely. As it is they make themselves ridiculous.

The theory of this plan of organization is most plausible. It is to classify the patients according to their diseases, each class constituting a department, over which there is placed a resident and visiting physician.

The visiting physician visits his ward or wards every day, examines, prescribes and operates. The resident is in the hospital all the time to carry out the instructions of his superior, attend in cases of emergency, &c., &c. The visiting physician is selected for a special department because of his superior knowledge and experience in the treatment of the kind of disease assigned to it. His colleague (for there are two visiting physicians for each specialty), is his rival, and besides this, during ten months in the year he, must prescribe in the presence of an audience of students and physicians. By such an arrangement a generous emulation is created, and a most laudable ambition stimulated and kept alive.

Nor is there any conflict of authority anywhere. If a patient is afflicted with two diseases, as soon as he is cured of one (the most important), he is immediately transferred to the appropriate department for his other malady, being discharged from this, he is discharged from the hospital.

The Steward, as is right and proper, has control of the entire domestic affairs of the institution.

The profession of medicine has grown to be a domain too vast to be administered by a single man. It is safe to say that a man who now practices surgery, "general practice," obstetrics, gynæcology, opthalmolagy, otology, &c., &c., is proficient in none of them, or at least, in not more than one of them. And this being the case, no one outside of a lunatic asylum would contend that he can do justice to four hundred patients, prescribing properly for each and every one of them daily. He must call to his aid a "consulting physician" for the difficult cases. Then why not give this consulting physician entire control of the class of cases which he is specially qualified and anxious to treat? Our common sense tells us that the Board of Health has done a wise thing.

And again, this plan is not a "new departure," but has been in successful operation for years in New York, Philadelphia, Boston, New Orleans, Chicago and Cincinnati, and these cities only copied from the Metropolitan Hospital of the old world. So far as our own hospital is concerned, we affirm that it has not been in such good condition in every respect for years. Experience, then, of the rest of the world first, and our own so far as we have gone, tells us that the Board of Health has done a wise thing.

It is objected that there is no responsible head, which objection is not founded in fact.

We have just said that the steward, (who is a responsible man) is responsible for the domestic machinery, and each physician is responsible for the right conduct of his own department, and every one of the physicians who are members of the visiting corps are responsible men, professionally and otherwise. And our concluding advice to our secular brethren is not to shoot next time before you take sight.

Never "Hyde your light under a bushel," is the motto of the *Missouri Republican*: and consequently the editor of that Pre-historic sheet is endeavoring to illuminate the dark subject of hospital management with his effulgent rays. We would recommend in his case a strict adherence to the "passive policy," less undue mental concentration on this subject may induce an acute attack of cerebral softening.

The American Medical Association meets to-morrow at Detroit, and it is to be hoped that the meeting will be in every sense a representative one.

We have received the first number of the Virginia Medical Monthly; Landon B. Edwards, M. D., editor and proprietor. The journal presents an exceedingly neat appearance, well printed on good paper, with 62 pages of reading matter. The first issue contains quite a number of originol articles from such writers as Cabell, McGuire, etc. We wish the enterprising editor sucess in his undertaking.

WE take this opportunity of expressing our appreciation of the kindly greetings and complimentary notices extended to us by our professional brethren of the medical press, and it is scarcely necessary to add that it is with no ordinary feelings of pride that we find ourselves in such goodly company.

We have determined to reduce the subscription to the RECORD, not including membership in the Library Association, from $300 to $200 per annum. Annual subscription to the RECORD, including membership in the Library Association, $300 as heretofore.

Book Notices and Reviews.

"PARRISH'S TREATISE ON PHARMACY," Enlarged and Thoroughly Revised by Thomas. S. Wiegand. Philadelphia: Henry C. Lea. For sale by St. Louis Book and News Co.

For many years this work has been the leading authority on the subject of Practical Pharmacy in the United States. It is the progeny of a man who labored unceasingly for its advancement, and, who devoted to this task a mind systematized by education and the highest culture. The introduction of new remedies, and the advancement in pharmaceutical operations made a revision of this work necessary, and much had been done by Prof. Parrish looking toward the accomplishment of this object, when he was so suddenly called away from all earthly labor. That the completion of the work fell into able hands, the volume before us gives ample evidence. It is similar in type and the general arrangement of matter to the old, but as it represents the science up to date it is necessarily much enlarged.

As a piece of workmanship the book reflects credit upon the publishers. More than this we deem it unnecessary to say, as the mere announcement of the book, we are sure will create an immediate demand for it. J. M. G.

A DICTIONARY OF MEDICAL SCIENCE. By Robley Dunglison, M. D., L. L. D. A new edition enlarged and thoroughly revised. By Richard S. Dunglison, M. D.

We have received from the publisher, Mr. H. C. Lea, the new and thoroughly revised edition of this standard medical lexicon. This work has long enjoyed the confidence of the medical and scientific world both in this country and abroad, and the exhaustive revision which it has undergone at the hands of its distinguished compiler's son, will enable it to sustain its well-earned reputation of being the best medical dictionary extant.

Medical terminology has been almost revolutionized in the last decade, and thousands of new words have been coined to meet the requirements of a wonderfully progressive science. For instance, one has but to recall the multitudinous new expressions brought into requisition by the comparatively recently developed branches of neurology and electrology, to appreciate this fact. Therefore, it was found necessary to considerably enlarge, and carefully revise the lexicon, and upon examination we find that this duty has been conscientiously performed. The work is very elegantly presented by the publishers.

Miscellaneous Notes.

THE THIRD congress of German Surgeons was held in Berlin from April 8th to 11th.

DR. VIALE, physician to the Pope, died in Rome recently, at the age of eighty-five.

TEN female students attended lectures at the Uuiversity of Edinburgh during the last session.

SYDENHAM was a volunteer medical officer in the parliamentary army.

MM. MURON AND JOULIN, two distinguished physicians in Paris have recently died.

THERE were 735 patients treated at the City Dispensary during the last week.

THE *Virginia Medical Monthly* is the only medical periodical published in the Old Dominion.

M. VILLEMIN, one of the first to experiment on the inoculability of tuberele, has been elected member of the Academy of Medicine, Paris.

THE mortuary report for the week ending, May 23, show 90 deaths and 16 still-births in this city, during the period mentioned.

DR. R. W. TAYLOR, of New York, reports four cases of ulcer of the penis occurring in infants after the Jewish rite of circumcision.

A YOUNG MAN in Paris actually swallowed an ordinary table-fork, whilst exhibiting his talents in sleight-of-hand. In spite of surgical aid the fork still remains in the stomach, but he complains of no especial inconvenience.

AT the last meeting of the Board of Health the following gentlemen were appointed additional consulting physicians to the City Hospital: Drs. M. A. Pallen, C. A. Todd, P. V. Schenck, W. C. Glasgow, H. M. Spencer.

A STORY is related of a Chicago physician who is also an extensive real estate operator, that recently he prescribed some pills for a lady, at a time when he was very much absorbed in one of his land transactions. She asked how they were to be taken. "A quarter down" said the doctor, "and the balance in one, two and three years."

MALIGNANT CHOLERA has prevailed all winter in several places in Europe. Munich has suffered from it for the last eight months with a loss of 1,500 persons.

DRS. W. A. MCCANDLESS, Geo. Homan, W. Wyman, G. F. Barr, T. E. Holland, I. P. Lytle, W. G. Downing, and B. N. Torrey, compose the resident Medical Staff at the St. Louis City Hospital.

THE FOLLOWING mixture, very frequently inhaled through the nose, is said to produce the most marked relief in nasal Catarrh: Chloroform and Tr. of Iodine; of each half an ounce; Carbolic acid, five to ten grains.

THE GOVERNMENT MESSENGER, a Russian paper, announces that the cabinet of St. Petersburg has proposed that a new international sanitary conference, for the revision of the measures hitherto taken to prevent the spread of cholera, should be assembled at Vienna, and that nearly all the European powers will send representatives to the conference.

THE Dresden papers report that seventeen experiments have been made during the present year with invariable success in the hospitals of that city to infuse lamb's blood into the human subject. In the first case tried the patient had long suffered from pulmonary disease, and the immediate effect of the operation was to raise the pulse, and impart a sense of greater strength.

DR. ROBERTS, in the *Practitioner*, recommends a plan of mechanical rest in pleuracy, which consists in fixing the chest by the means of adhesive strips applied to the affected side. Dr. Gehrung, of Denver has long applied this principle to the treatment of not only pleuricy, but pueumonia and other diseases of the lung. He uses a simple roller bandage bound firmly around the chest walls, and says that it causes no feeling of discomfort whatever.

ST. LOUIS PHARMACY.—An act to regulate the practice of pharmacy in the city of St. Louis was passed by the Missouri Legislature, February 2d, 1874. This law provides for the examination and registration of pharmacists, and holds all proprietors of stores responsible for the quality of the drugs and chemicals dispensed. The power to appoint a Board of Examiners is vested in the St. Louis College of Pharmacy, and at a meeting called for this purpose and held on the 2d of April, last, the following gentlemen were unanimously elected, viz: Chas. Habicht, Theo. Kalb, J. M. Good, F. X. Crawley, and Justin Steer. On the 19th of May the Board met for organization and elected Theo. Kalb, President, and Justin Steer, Secretary. The examinations begin early in August.

MEDICAL LAWS IN PRUSSIA.—In many countries the most stringent laws exist for the protection of the people against quackery, and none were more so than those formerly existing in Prussia. But of late a more simple, but most effective one was enacted, which seems to answer all purposes, and furnishes better results.

It is as follows: Any one who desires to do so may practice medicine. But under certain restrictions: 1. He can not put his name to a sign or door-plate as a doctor. 2. He can not collect his fees by the process of law. 3. He can not give professional evidence before any court.

Such a law would work to very great advantage in this country also.

A CURIOUS case of malformation of the fauces recently appeared in the throat and ear clinic at the City Hospital. The patient, a woman of thirty, complained of earache; of course, during the examination of the patient, the throat was inspected, as well as the ears, and the following abnormities were discovered: Both posterior pillars of the fauces were adherent to the posterior wall of the pharynx, leaving only a triangular shaped opening leading from the fauces into the naso-pharyngeal space above, which measured about an inch in width at its upper broader portion, and in length up and down about 1¼ inch. The uvula not notably enlarged, hid most of the opening, its root occupying nearly the middle of the base of the triangle. A probe could be passed up behind the uvula, but not laterally, behind the posterior pillars. The tonsils occupied their normal position very nearly. The pharyngeal mucous membrane visible back of the opening, was of a cicatricial appearance, as were also the bordering pillars. Patient gave no history of syphilitic disease, insisted that she never had sore throat; in fact, did not admit that she knew that there was anything abnormal about her throat.

MARINI'S ANATOMICAL PREPARATIONS.—Among the most curious things at the Vienna exposition were the anatomical preparations of Dr. Marini, of Naples, showing how various parts may be preserved for years in an extraordinary manner. The freshness which a portion of, or a whole subject may exhibit, is astonishing. For example, a foot prepared at Paris in 1864, and bearing Prof. Sappey's voucher, remained quite unaltered; and on making an incision into it the subjacent parts looked as fresh as those of a person just dead. The fatty tissue presents its ordinary aspect, and the tendons have their pearly lustre. The tissues, moreover, retain their transparency, and viewed in the dark before a light, their different layers, and the positions of the bones are distinguishable. By one of his processes Dr. Marini produces what he calls the "coriaceous" condition, in which the tissues are hard and without transparency, but on being placed in water recover all their freshness. A portion of such a preparation made in 1868, exhibited before the jury, had all the appearance of being a recent corpse. It will be remembered that at the Paris exhibition of 1867, M. Brunetti obtained the grand prize for his preparation made by the agency of tannic acid; but these, although exhibiting the natural forms, were dry and hard.

At present M. Marini keeps his process a secret.

Another ingenious process is only employed for embalming and what he calls petrifaction. Thalberg has been preserved in a "fresh" state for the adornment of his widow's drawing-room. That property of electricity has been utilized by which it transports certain salts, molecule by molecule, to one of the poles, and eliminates others, so that the tissues, to their ultimate celiular terminations, become penetrated with insoluble salts, while the general form is preserved.

Signor Daffito, a former prefet of Naples, was recently so embalmed, and as it is a long process, Dr. Marini, in order not to have to go to the cemetery every day while it was going on, attached a small electrical bell, which sounded as long as the electric current continued, desiring the keeper of the cemetery to let him know when it ceased ringing. The popular imagination became aroused, and it was asserted that the devil in person was ringing the confessional bell in the ears of the dead prefet—he having died without extreme unction, and having had only evil horial.—*Lyon Medicals—Med. Times and Cazette.*

HYRTL'S LAST LECTURE.—A most pathetic scene occurred at 2 o'clock P. M. in Hyrtl's lecture room which will not soon be forgotten by those who witnessed it. The hall was crowded with students from the floor to the ceiling, and the deputies from among his colleagues were also present. When Prof. Hyrtl made his appearance there was sent up such applause as made the walls of the building tremble.

Led in by his truest friend and assistaat, Hyrtl stepped to the arena and declared that he could not fill this last hour on the allantois and Wolffian body because his table and all his preparations were covered with students. His parting words were so sincere, so eloqnent and so touching that every eye in his audience was filled with tears and loud sobbing and weeping was heard over the entire room. What he said we are not able to repeat to-day, but will publish in our next number. The addresses of his colleagues were earnest, impressive and profoundly touching and made a lasting impression. They were from pure and noble hearts.

Prof. Hyrtl could answer these addresses in no more earnest way than by holding the speakers to his breast and kissing them again and again. When they reached him the laurel wreath, tears rolled cver his cheecks in streams, and he was forced to leave the hall.

In the yard by the well a tribune had been improvised from which he took a last farewell from his pupils, in an apostrophe on his laurel wreath, every leaf of which, he said, was an eloquent testimonial of their love and reverence. He would cherish it to the end of his life and carry it with him in his grave.

Hyrtl did not hesitate to state that he had not withdrawn on account of failing strength, but for reasons which he could not there detail. He would devote the remainder of his days to science, and they should be witnesses of his continued activity.

When he left the place, shout after shout went up from the crowd that by this time had filled every available space, and even climbed up into the trees. —*Weiner Allgem. Zeit. Clinic.*

BLOODLESS AMPUTATION OF THE LEG BY THE AID OF ESMARCH'S BANDAGE AND TQURNIQUET, THE PATIENT BEING UNDER THE INFLUENCE OF METHYL BICHLORIDE.—Saturday, May 16.—The operating rooms of St. John's Hospital were crowded with an eager and expectant assembly of medical students and physicians, to witness an operation by Prof. A. P. Lankford, for the removal of a useless foot and ankle, in which he proposed to test the value of Esmarck's contrivance for the prevention of hemorrhage. It was also understood that he would administer the "chloro-methyl" of Dr. Richardson, of London, instead of the common anæsthetics.

At the appointed hour the patient was placed upon the table, and the administration of the anæsthetic began. As the introduction of this agent is new in this city, (and in fact on the continent, Prof. Lankford being the first so far as we are informed, to give it a public trial, which he did before the class of the Missouri Medical College during last winter's session), it may be proper to state that the apparatus he used was simply a broad thin sponge, enveloped in oiled silk. The chloromethyl was poured upon the sponge quite freely, and then held close over the patient's mouth and nose. Anæsthesia was quickly produced, the patient exhibiting but little of the violent excitement attendant upon the exhibition of chloroform, and reaching the stage of insensibility much more rapidly than we are accustomed to see it produced by ether.

This being accomplished, Prof. Lankford proceeded to apply the Esmarch bandage, beginning at the toes and continously enveloping the limb as far as the knee. He then applied the Esmarch tourniquet as directed by that gentleman, after which he removed the bandage; and sure enough, as described by the inventor, the limb looked precisely like the limb of a cadaver, as far up as the tourniquet. He then proceeded to amputate the leg at the lower third, according to his favorite method, (described in St. Louis *Medical Journal* for February). When it was removed, and after the three principal arteries requiring ligation at this point had been secured, he held up his hands to the audience and holding out the knife, called their attention to the fact that there was not a drop of bood or blood-stain upon either his hand or the knife. It was no less a marvelous than pleasant sight to the eyes of the editor of this journal, who was one of the witnesses.

After the stump had been dressed, the patient called for his crutches and walked to his bed in a ward some forty or fifty feet distant. Of course it will be understood from this statement that he had in the meantime, recovered in a measure from the effects of the anæsthetic. And it is well to state in this connection that he had three times before taken chloroform, and ether once; and that following each and every one of these administrations, he was prostrated by prolonged vomiting and nausea. A distressing hiccough had followed the ether influence.

We suppose that his ability to walk back to his ward so promptly, was due to the fact that he had lost *no* blood during the operation, coupled with the other fact that he had so quickly recovered from the anæsthesia.

The specific gravity of Methyl-Bichloride is much less than chloroform, and passes out of the system much more rapidly. We went away feeling that Esmarch had made a great contribution to the department of operative surgery, for which he will ever be held in gratetul remembrance.

EXAMINATION OF THE BODY OF LIVINGSTONE. —The tollowlng is an account of the examination of the body of Livingstone by Sir Wm. Furgusson: "It has fallen to my lot to have the honor of being selected to make the crucial exam ination to this end, and I have accordingly performed that duty. From what I have seen I am much impressed with the ingenious manner in which those who

have contrived to secure that the body should be carried through the long distance from where Livingstone died until it could reach a place where transit was comparatively easy, accomplished their task. The lower limbs were so severed from the trunk that the length of the bulk of the package was reduced to a little over four feet. The soft tissues seem to have been removed, to a great extent, from the bones, and these latter were so disposed that by doubling and otherwise, the shortening was accomplished. The abdominal viscera were absent, and so were those of the chest, including, of course, the heart and the lungs. There had been made a large opening in front of the abdomen, and through that the native operators had ingeniously contrived to remove the contents of the chest as well as of the abdomen. The skin over the chest, sternum, and ribs, had been untouched.

"Before these points were clearly ascertained, some coarse tapes had to be lossened, which set free some rough linen material. A striped colored bit of cotton, such as might been an attractive material for the natives, among whom Livingston travelled. A coarse cotton shirt, which doubtless belonged to the travellers' scanty wardrobe, and in particular a large portion of the bark of a tree, which had formed the principal part of the package, the case thereof, no doubt. The skin of the trunk, from the pelvis to the crown of the head, had been untouched. Everywhere was that shrivelling which might have been expected after salting, baking in the sun, and 11 months of time. The features of the face could not be recognized. The hair on the scalp was plentiful and much longer than he wore it when last in England. A moustache could not be distinguished, but whiskers were in abundance. The forehead was in shape, such as we are familiar with from memory, and from the pictures and busts now extant. The circumference of the cranium from the occiput to the brow was 23⅞ inches, which was recognized by some present to be in accordance with such measurements when alive.

"In particular the arms attracted attention. They lay as if placed in ordinary fashion, each close by the side. The skin and tissues were on each side shrunken almost to skeleton bulk, and at a glance to practiced eyes,—there were five, I may say six, professional men present,—the state of the left arm was such as to convince every one present, who had examined it during life, that the limb was Livingstone's. Exactly in the region of the attachment of the deltoid to the humerus, there were the indications of an oblique fracture. On moving the arm there were the indications of the ununited fracture. A closer investigation and dissection displayed the false joint, which had long ago been well recognized by those who had examined the arm in former days. The Rev. Dr. Moffat, and in particular Dr. Kirk, late of Zanzibar, and Dr. Hamilton, in Scotland, at once recognized the condition. Having myself been consulted regarding the state of the limb when Livingstone was last in London. I was convinced that the remains of the great traveler lay before us. Thousands of heads with like large circumference, might have been under similar scrutiny; the skeletons of hundreds of thousands might have been so; the humerus in each might have been perfect. If one or both had been broken during life it would have united again in such a manner that a tyro could have easily detected the peculiarity. The condition of ununited fratcure in this locality is exceedingly rare. I say this from my personal professional experience; and that such a specimen should have turned up in London from the centre of Africa, excepting in the body of Dr. Livingstone, where it was known by competent authorities to have existed, is beyond human credibility. It must not be supposed by those who are not professionally acquainted with this kind of lesion, which often causes so much interest to the practical surgeon, that a fracture and new joint of the kind here referred to, could have been of recent date, or made for a purpose. There were in reality all the indications which the experienced pathologist recognizes as infallible, such as the attenuated condition of the two great fragments (common under such circumstances) and the semblance of a new joint, but actually there was a small fragment detached from the others, which bore out Livingstone's own view, that the bones had been "crushed into splinters." Having had ample opportunity for examining the arm during life, and conversing with Livingstone on the subject, and being one of those who entertained hopes that the last reports of Livingstone's death might, like others, prove false, I approached the examination with an anxious feeling regarding the great and most peculiar crucial test. The first glance at the left arm set my mind at rest, and that, with the further examination, made me as positive as to the identity of these remains, as that there has been among us in modern times one of the greatest men of the human race—David Livingstone.—*British Medical Journal.—Edinburgh Medical Journal.*

DETERMINATION OF THE AGE OF THE HUMAN EMBRYO BY THE EVOLUTION OF THE TEETH.—M. E. Magitot has been occupied in the solution of this problem, so important from a physiological point of view, and more especially from a medico-legal point of view. He has determined that a maxilla or even a fragment of a maxilla may now suffice to fix the age of the embryo. The author gives in a table his conclusions, which we regret to be unable to publish for want of space. In a communication about to be published, the author intends to use the evolution of the dental follicles in determination of the age of the newly-born child.—*La France Medicale*, May 6, '74.—*The Clinic.*

Books Received.

A PRACTICAL Treatise on the Surgical Diseases of the Genito-Urinary Organs, including Syphilis. Designed as a Manual for Students and Practitioners. By W. H. VanBuren, A. M., M. D., Prof. of the Principles of Surgery, etc., Bellevue Med. College; and E. L. Keyes, A. M., M. D, Prof. of Dermatology Bellevue Hospital Medical College, etc. New York: D. Appleton & Co., 1874. (For sale by Gray, Baker & Co.)

Original Communications.

THE ACTUAL CAUTERY IN UTERINE THERAPEUTICS.

BY MONTROSE A. PALLEN, A. M., M. D.

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Some seventeen years ago I almost shuddered at the *fireworks* of Jobert (de Lamballe) in Hotel Dieu, at Paris, where twice weekly, I witnessed the cauterization of the cervix and sometimes the cavity of the uterus for various maladies. So unfavorably impressed was I with the seeming barbarity of the procedure, that for years, I condemned the actual cautery as a relic of mediæval surgery, to be found only in the practice of antiquarians and retrogressionists.

Circumstances have changed these views, and I now consider the actual cautery as one of the most powerful adjuvants in gynæcological therapeutics. There are three methods by which the actual cautery may be applied, not only to the uterus, but to all other parts requiring speedy, non-hemorrhagic destruction or ablation: by the iron heated in a charcoal furnace, by the gas jet, or by the galvano-caustic apparatus.

The conditions and anatomical arrangements determine the method: the degrees of intensity and quantity being modified and regulated by the result expected to be obtained. To illustrate these propositions it would be well to enquire into the nature of those lesions demanding the actual cautery, and to explain the modus operandi of its use.

In 1794 Percy* published a work on "Surgical pyrotechnics," first systematizing the various forms and kinds of actual cauterization mentioned in the text books of surgery, known as *inherent, transcurrent, punctiform, slow or prolonged, objective, solar, burning phosphorous*, and *boiling water.*

After Percy, came Rust, Professor of Surgery at Berlin, who devoted several chapters in his "Treatise on luxations produced by internal causes" published in Vienna, 1817, to the use of the actual cautery. Gradually the procedure fell into disrepute upon the continent of Europe, save in France, where it had strong advocates in Lisfranc and Jobert (de Lamballe).

For several years after the latter surgeon left Hotel Dieu, somewhere about 1861-2, the actual cautery seemed to have been abandoned altogether in gynæcology, nntil Courty strenuously advised its use in his "Treatise on the Uterus and its annexes," published in 1867.

In Germany, Great Britain and the United States it never had much popularity, but is now being examined with such care and circumspection as will undoubtedly give it the proper place in therapeutics to which it is entitled.

The actual cautery produces its result according as it is superficial or deep, being physiologically modifying in the former, and pathologically destructive in the latter procedure. Its use is more frightful than painful, when we remember the comparative insensitiveness of the cervix uteri, and, as nearly all operations upon the cavity of the womb should be performed under anæsthesia, the patient need know nothing of such procedure when necessary to make it at this site. I have frequently cauterized the cervix by means of a small gas-jet without the knowledge of the woman. In proportion as the white-heat iron or gas-jet is pressed upon the cervix, so is the mechanical thrombosis of the superficial and deep vessels, resulting in either a slight bulla, an eschar, or a complete destruction of tissue. We, therefore, are enabled to regulate the result according to the amount of cicatrization produced. A marked diminution in the size of the organ, results from slight cauterization in consequence of the contractility and the shrinkage of the tissues, engendered by the destruction of the peripheral capillaries. The hyperplasia ceases in proportion to the diminution of the nutritive supply.

When entire destruction of the organ is necessitated, deeper and more prolonged cauterization is demanded, and the eschar produced is relative to the intensity and quantity of the heat. Here the coagulation of the blood and lymphatic vessels (mechanical thrombosis), extends to a much greater distance than the actual spot destroyed, and the cicatrization resulting therefrom depends upon the number and size of the vessels implicated.

The derivative effects of the actual cautery in chronic metritis resulting from sub-involution or from areolar hyperplasia, are most beneficial, particularly when combined with alternate treatment, by the continuous galvanic current applied topically to the cervix and cavity. I have seen quite a number of long protracted cases rapidly ameliorated, and some apparently perfectly cured by such therapeutics. In these conditions, the characteristic symptoms of enlargement, induration, and hyperæsthesia, diminish under the cautery more rapidly than can be effected by iodine, scarification, or vesication by means of the cantharidal collodion; and, the constitutional symptoms of the patient are not so distressing as under the drainage from blistering.

Whether the cauterization be superficial or deep, the degrees of reaction generally impress the vitality of the organ to such an extent that we may usually anticipate a decided beneficial result.

Notwithstanding a considerable loss of tissue by the destructive cautery, the granulating process

*Percy—*Pyrotechnic chirugical, ou l'art d'appliquer le fen en chirugrgie.* Metz, 1794.

from the undestroyed structures is most rapid, and the whole is replaced by an apparently normal reformation, and not by hard, unyielding cicatricial material. In one instance where I destroyed the entire posterior portion ot the cervix by means of the galvano-caustic apparatus, and even pushed the fire beyond the vaginal junction, the whole had reformed, or, rather, a new histological equivalent had been substituted in less than six months, so that it was difficult to determine any loss whatever, save the narrowing of the posterior vaginal fornix. This case was one of epithelioma, and I was assisted by Drs. Hodgen, Michel, Green, and Engelmann. jr. It is now a year since the operation was made and there has been no reappearance of the growth.

Courty mentions another case in the second edition of his "Treatise on the Uterus and Annexes," where he proposed to reduce, or at least partially destroy an inverted uterus of long standing, by means of the actual cautery. So rapidly did the mucous membrane reform, that he was obliged to desist in the attempt after *fourteen unsuccessful efforts towards its destruction.*

The lesions for which the actual cautery may be employed are hypertrophy of the uterine fundus and cervix following parturition (sub-involution)—nascent metrititis, (hyperæmia, infiltration, and enlargement with or without follicular erosion of the cervix)—chronic metritis with induration and persistent enlargements, (areolar hyperplasia)—heterologous growths either pronounced or suspected, such as lupus, fungoid, and epithelioma.

Clinically speaking, there is not much difference between sub-involution and areolar hyperplasia, both presenting the usual symptoms of induration, enlargement and hyperæsthesia. Pathologically, the sub-involution consists of a persistance of the colossal muscular fibre (of pregnancy) of the uterus proper, whilst the chronic metritis is a hypertrophic increase of the inter-muscular fibre connective tissue. In sub-involution the "ulceration" of the cervix usually consists of epithelial denudation, whilst in chronic metritis it is really a molecular death, a circumscribed gangrene of the tissue proper, in consequence of defective vascular and nervous supply. The treatment of both implies an absorption of the hypertrophied fibres, and a removal of that element which prevents muscular contractility, the controlling factor in the production of effete material, usually described as the product of inflamation.

Here cauterization should be made for the purpose of actual destruction of tissue, in order to promote and maintain that amount of shrinkage and contraction which squeezes out the exudates and retains, in a normal proportion, that new histological equivalent formed upon the granular tissue. The anæmia, not actual but relative, tends to become hæmia in consequence of the stimulus impressed upon the remaining tissue which is not in excess, and the supply is, therefore, more in correspondence with the demand.

In acute metritis, after disgorgement of the cervical tissue by scarifiction or leeches, and a corresponding drain upon the uterine vessels by means of such catharsis as will empty the hemorrhoidal system, I do not know a more powerful agent in the maintenance of permanent vascular contraction, than the actual cantery applied several times, at intervals of ten or fifteen days. The cauterizations should be sufficiently deep and numerous to produce thrombosis of the peripheral vessels, and to so maintain them until cicatrization shall have permanently determined that contraction of tissue necessary to normal nutrition.

In those cases where lupus, fungoid, or epithelioma are encountered, the question is by no means settled, whether the knife or the caustic should be used. Clinical testimony alone will determine the point. There can be no doubt that a clean removal of these growths by the knife is better when practicable, yet at the same time there can be no objection to the cautery when we can attack the healthy structure beyond, and one strong point in favor of it is its freedom from hemorrhages. I have seen some excellent results in these troubles, where epithelliomata have been removed with the galvano-caustic or the white-heat iron, but on the other hand, it must be recorded that I have likewise seen some cases where neither the knife nor the caustic was of any avail. When the cancerous deposits are found beyond the vaginal insertions upon the neck of the uterus, and the parametric regions are invaded, the use of the actual cautery is highly injudicious because of the dangers of peritonitis, and the difficulties encountered in circumscribing the limits of the neoplastic deposit.

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Peritonitis is one of the consequences to be dreaded in the use of the actual cautery, but the same objection pertains to any one of the major gynæcological operations; and I have known a serious, almost fatal cellulitis to follow the introduction of the uterine probe, and death to ensue from the use of one single sponge tent!

We should be very guarded in the use of the actual cautery, when cellulitis, peritonitis, salpingitis, parapelvo-metritis, or erysipelas exists; in fact they may be classed as contra-indicants. For these reasons the gynæcologist should carefully explore the entire pelvic cavity, lest any lurking inflammation of the contained organs be kindled into a flame that might burn out the life of the patient. These facts are always to be remembered in any procedure upon the female pelvis, where life is not actually hazarded by any delay.

Like all other operative procedures, the use of the actual cautery should be limited to such cases

as the experienced operator may select, as an injudicious selection by the inexperienced and unskillful, might bring disrepute upon a very valuable and useful therapentic adjuvant. I fully agree with Prof. T. Gaillard Thomas, of New York, who especially objects to ovariotomy or gastrotomy being performed by those not well versed in the details and history of such operations. Experience teaches us much in the way of discrimination, and I hold similar objections with regard to the use of the actual cautery. Its history and detail must be carefully studied to be appreciated.

The indications and contra-indications having been carefully weighed, the gynæcologist having decided to use the heated-iron, the gas-jet or the galvano-caustic, the question to be determined is the method of procedure.

When the cautery is to be applied, and to be drawn superficially over the cervix, the patient need not be placed under the influence of an anæsthetic, but if the operation is to involve a destruction of a greater or less amount of tissue, chloroform, ether, or nitrous-oxide may be used: preferably the last mentioned, as it is comparatively transitory in its effects and the usual nausea and vomiting of post anæsthesia rarely, if ever, ensues. For the gas jet or smaller galvano-caustic tips, the patient may be placed in the semi-prone position, and the cervix exposed by means of a Sims speculum, provided the operator be very dexterous and steady of hand. This exposure of the vagina is, however, somewhat hazardous, as I once had the platinum wire of a galvano-caustic tip to melt off and drop upon the anterior vaginal wall, fortunately not doing much damage, but was a source of inconvenience for some days. To be perfectly sure, I have, for some time past, been in the habit of introducing the round speculum made of wood, valcanite, or ivory, and pressing it firmly to the vaginal insertions, and washing it out with cold water after each application. When the speculum is withdrawn, a pledget of cotton, soaked in carbolic oil or glycerine, is neatly and smoothly adjusted to the eschar; it may be removed in twenty-four hours, and the vagina subsequently washed out with a tepid solution of permanganate of potash or carbolic glycerine water. Should much pain persist, which is extremely rare, warm applications must be made to the hypogastrium, and opium exhibited. I prefer McMunn's elixir in thirty or forty drop doses, or Codeine in powder, one-third of a grain, every two or three hours, until subsidence of the symptoms The management of the eschar and subsequent slough is done according to the usual rules pertaining to such lesions. Should peritonitis or cellulitis arise during the progress of the case, local abstractions of blood by leeches (or puncture) from the cervix uteri and around the anus if applied early, combined with the use of opium internally and suppositories in the vagina of belladonna and morphine, will do much to cut short these lesions. *One rule, almost a sine qua non, which I invariably follow after all severe operations upon the pelvic organs, is to bring the patient as rapidly as possible under the influence of quinine as soon as the reactionary stages indicate any increase of temperature.* Whether quinine acts by preventing a proliferation of the white blood corpuscles, and thereby becomes antidotal to septicæmia, or whether it quiets vascular irritability and diminishes hyperæmic tendencies, a fact of importance that I have learned clinically, is, that cinchonism to a slight degree is fraught with decided benefit. In simple vesication of the cervix by the actual cautery the patient should be ordered to remain quiet for at least twenty-four hours, but in the major degrees of the procedure she should be kept in bed until the slough is cast off and the granulating process thoroughly established. In this stage, and in fact in all stages where pus is being eliminated, nothing is lost by keeping the patient under s mal doses of quinine and iron. I might elucidate these generalities by adducing a series of cases, but such testimony would only particularise the propositions already enunciated.

Original Lectures.

THE DIAGNOSIS AND TREATMENT OF CEREBRAL HÆMORRHAGE.

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We have seen, gentlemen, during the previous lecture, that the term apoplexy is oftimes so unfortunately associated with cerebral hæmorrhage as to lead to the most inextricable confusion, by confounding the symptoms resulting from several very distinct pathological conditions, with one and the same ætiological causation. By the word apoplexy, is meant a sudden fit or seizure of insensibility, or a sudden loss of consciousness and of voluntary motion, in which the individual falls down suddenly "like the ox which is felled by the butcher." Therefore the literal interpretation of the apoplectic condition is sudden and complete insensibility, and perfect abolition of all voluntary movement. Practitioners of medicine are frequently called in when the patient is in the apoplectic state, but, as before intimated, a thorough acquaintance with the various causes giving rise to the seizure can alone serve to elucidate the pathology of each individual case, without which knowledge a scientific diagnosis and appropriate treatment are utterly impossible. It will, therefore, be of vast importance rapidly to recapitulate the various affections in which *apoplectic symptoms* are of the most frequent occurrence and may lead to errors in the diagnosis, before attempting to discuss the treatment of cerebral hæmorrhage.

We will first allude to affections in which coma is present with paralysis. Epileptic coma, which almost invariably, in different degrees of intensity

and prolongation, follows the epileptic convulsion, may mislead us, unless by a careful inquiry into the history of the case we exclude this possible source of error. This is all the more likely, as true epileptic hemiplegia is not an infrequent occurrence in the course of the affection. Alcoholic coma furnishes us a clue by the alcoholic impregnation of the breath, and rapid disappearance of the symptoms after the administration of ammonia; yet, notwithstanding these distinctions, Tanner attests that "many cases of apoplexy, occurring in the streets, have been mistaken for intoxication." Coma, resulting from opium narcotism, is attended with a marked contraction of the pupils; the possibility of occasionally arousing the patient, and the absence of the apoplectic stertorous respiration, are quite different from the symptoms of cerebral hæmorrhage. Syncope and asphyxia present symptoms so characteristic and pathognomonic, that they need only a passing mention as a possible source of fallacious diagnosis. Sunstroke will be recognized by the history of the case, the feeble and frequent pulse, greater difficulty of deglutition, a less snoring respiration, less intensity of the coma, and the absence of paralysis Uræmic coma is known by its characteristic prodromata, cephalalgia, convulsions, vomiting, and scanty urinary secretion, forming the most characteristic features of the group. We now approach the differential diagnosis of such affections in which there are *true* apoplectic symptoms accompanied with *paralysis*, and with which we must familiarize ourselves in order to diagnosticate correctly by exclusion.

It is of such common occurreace for medical men to confound such cases with cerebral hæmorrhage, because of the presence of apoplectic symptoms, that we cannot too carefully appreciate the various sources of error which may induce us to treat distinct pathological manifestations, presenting precisely analogous symptoms, by similar methods of treatment antagonistic to the welfare of the patient. As an illustration of the above assertion, I might mention that many forms of hyperæmia and anæmia of the brain, produce precisely the same symptoms, and every tyro in medicine is well aware of the great misfortunes attached to the necessary distinctions in treatment of two such opposite pathological conditions. It is only by basing our diagnosis on the etiological conditions, the sequence of the symptoms, the history of the case, the age of the patient, that we can arrive at definite and reliable conclusions. The two principal affections presenting apoplectic symptoms accompanied with paralysis, to be guarded against in the diagnosis of cerebral hæmorage, are, 1st, acute or red softening; 2d, atrophic or white softening (brain necrosis of Niemeyer), especially that produced by obstruction of the cerebral arteries with emboli, which, by the sudden anæmia of the brain it occasions, produces the symptons under consideration. In the diagnosis of acute or red softening, we must recolleet that the latter is the result of a previous encephalitis, a very rare affection, and is not induced by the causes which usually incite inflammation in other organs. Therefore the etiology of this affection must be considered as an encephalitis, resulting, 1, from traumatic causes, amongst which may be enumerated even slight contusions; 2, neoplasia; 2, disease of the cranial bones, especially of the petrous portion of the temporal bone (hence an otorrhœa would be of great significance.) The differential symptoms from cerebral hæmorrhage may in some cases be impossible to determine; in many cases, however, the gradual manifestations of symptoms of psychical depression and slight motor and sensory impairments, taken into consideration with the etiology of the case, are of vast significance in our decisions. Durand-Fardel mentions as "a significant sign of acute softening, an increased secretion from the mouth and eye." As regards the second point, the distinction of the apoplectic symptoms, caused by obstruction of an important cerebral artery, whereby a large territory of nervous substance is suddenly deprived of its nutritive supply, a careful auscultation of the heart and lungs will be the keystone on which our diagnosis can rest with great security. If, during the course of an endocarditis, or in a patient suffering with valvular disease or an extensive pulmonary destructive affection, such an accident occurs, our attention will be immediately directed to the probability of emboli, occasioning an obstruction in an important cerebral artery. Hence it behooves prudent men to explore most carefully the thoracic cavity in all cases of so-called apoplexy, with the same dilligence that they would examine the same in chronic brain diseases, knowing how, link by link, in the pathological order of sequences, a diseased condition of the nervous centers may have originated from an impoverished and poisoned nutrition, the result of a want of proper elimination of excrementitious substances retained in the blood through the faulty and inadequate performance of the renal secretion, occasioned by serious degeneration of the kidneys.

We can scarcely dismiss the diagnosis of cerebral hæmorrhage without a few words of reference to the general modes of causation of atrophic softening, as the latter is most intimately associated with the subject under consideration, owing to the difficulties at times of discriminating between the two affections. Atrophic softening, according to the most recent pathological investigators, is produced by one of the following causes ,all of which we have carefully to consider in our daily experience at the bedside, in order that our deductive explanations of a large class of serious brain symptoms may rest upon a safe basis: I. When the access of blood to certain portions of the brain is prevented by closure of the afferent vessels. 2. When collateral œdema developes in the vicinities of apoplexies, of points of inflammation and softening, and of tumors, etc. 3. When the capillaries of certain sections of the brain are compressed by extravasations of blood, by tumors, or other diseases contracting the cranial cavity,

We will only occupy ourselves with the first mode of causation, which most frequently has its origin in thrombosis and embolism. Having already alluded to the latter, we will briefly refer to the former.

Thrombosis is attributable to chronic endarteritis or atheromatous degeneration of the coats of the arteries, producing roughening of the inner arterial walls and dimution of the calibre of the vessels. As a consequence of snch changes, we have a *gradually* forming thrombosis, which, by degrees, and in many instances very slowly, obstructs the calibre of the vessels. Atheroma occurs principally in old, decrepid persons, and if serious brain troubles manifiest themselves gradually in patients past the meridian of life, we are apt to ascribe to such pathological changes; whereas, embolism occurs at all ages. If the peripheral arteries are rigid and tortuous, our diagnosis of

softening due to atheroma would acquire additional force, although atheroma may in some instances exist in the peripheral arteries without an analogous affection of the arteries of the brain; and on the other hand, the reverse is occasionally true. that the latter undergo atheromatous degenerations without any involvement of peripheral arteries. Hence brain symptoms occurring gradually in old, marasmic persons acquire a peculiar significance, for the reasons already explained.

We are now ready for the following law, almost invariable in its application to the differential diagnosis of atrophic softening and cerebral hæmorrhage, first enunciated by Recamier, and quoted by Trousseau, "that whenever hemsphlegia, complete and absolute, occurs *suddenly*, without loss of consciousness, softening of the brain may be diagnosed. Whenever, on the contrary, the complete loss of motor power is attended by loss of consciousness; whenever, especially, the individual has become *suddenly* comatose, hæmorrhage may be diagnosed, and hæmorrhage to a considerable amount." In softening, the sudden paralysis is due to a sudden giving way of the continuity of the brain fibres, producing an interruption to the conveyance of the mandates of the will from the centre of violition along the motor tract.

It may be important to allude to the fact that in cerebral hæmorrhage, so far from a sudden and unexpected developement of apopletic symptoms, as is generally supposed to occur, there are almost invariably certain prodromata, plainly indicative of the approaching storm. Trousseau, with his enormous experience, attests: ."For more than fifteen years my attention has been directed to this point in the history of cerebral hæmorrhage, and I never had the chance, *never once*, of seeing a patient struck down *suddenly* by apoplexy, in the classical and etymological sense of the word. I have indeed seen a great number of individuals suffering from cerebral hæmorrhage, in the most profound apoplectic stupor, but in every case, *without exception*, when the attack had occurred in the presence of witnesses, it had come on gradually, and had in general been slight at the onset, coma supervening ten minutes, half an hour, an hour, or several hours afterwards; but in no single instance, I repeat, have I seen a man with cerebral hæmorrhage struck down as with a blow, and dropping instantly in a state of unconsciousness." Hence, the *gradual* occurrence of cerebral hæmorrhage and its appropriate prodromata are elements not to be forgotten in the diagnosis, constituting, as they do, characteristic features in the study of the affection. This brings us to the discussion of the treatment—a matter of the most serious import to the practitioner.

After a careful but concise review of the teachings of the principal modern schools of medicine on the subject, we will try and cull from them all that constitutes, in their suggestions, the most reasonable and judicious measures, avoiding such as will not bear the severe test of reflection and common sense. As the exponents of the British school, we have selected Todd, J. Hughes Bennett, J. Russell Reynolds and Tanner; Flint of the American, Trousseau of the French, and Niemeyer of the German. If any partiality has been evinced in this selection, we must plead for our apology the high authority in which they are held in their respective countries, and the encomiums they have received from the profession at large, and the clearness, decision and plausibility of their opinions. Bennett regards the measure to be followed during the attack as "a subject of anxious consideration."

"The best rule, therefore, I can give you, is to judge of all the circumstances of the case. Whenever the individual is of a vigorous frame of body, if the face be flushed, the attack recent, and the pulse strong and full, a moderate bleeding may be beneficial. The extent must be influenced by its effect upon the heart's action; for, as we have seen, the object of the measure is not to draw blood from the brain, which is impossible, but to diminish the pressure on that organ by lessening the force with which the heart propels blood through the carotid and vertebral arteries. On the other hand, if the individual be of spare habits, the face pale, the pulse weak and irregular, and the usual symptoms of the shock be present, wine, brandy, stimulants generally, and restoratives, are demanded. But it most frequently happens that when you are called in neither one or the other indication presents itself. It will be most prudent, under such circumstances, simply to apply cold to the head, administer an active purgative, and, above all, enjoin quietude. At the same time the patient should be placed in the horizontal posture, with the head slightly elevated, whilst the cravat, stays, and all impediments to the respiratory and circulating functions should be removed."

This judicious advice is a gentle admonition to those who consider the lancet the *sine qua non* of proper treatment, who thus are reminded that active measures may be more powerful for evil than for good in many cases, and that a more enlightened pathology narrows the limit of the usefulness of venesection. Tanner premises his remarks upon the treatment of the fit by the following remarks: "*Formally the treatment of every case of apoplexy was commenced by bleeding, and statistics prove that the more freely the blood was taken away, the greater was the mortality.*" In his comments upon this assertion, he adds that such results might be expected inasmuch as the patient is only seen when the damage is done, and bleeding will not remove a clot. He alludes to the difficulty of determining in such instances the previous condition of the arteries, the prodromata of the fit, and the state of the brain itself. In case of disease of the arteries, previous renal or cardiac disease, he asks whether venesection would not be followed by unfortunate consequences. He then recalls the fact that the reparative processes could not be aided by such a mode of treatment. He then meets the argument that depletion will prevent further extravasation by the statement that, on the contrary, it promotes, it "*partly by diminishing the power of coagulation, and partly by inducing greater thinness of the blood.*" He then quotes Mr. Copeman in support of this same view. The basis of his treatment consists in obviating the tendency to death, and only practicing a small blood-letting in cases where the tendency is to death by coma, the pulse is full hard, or thrilling, the vessels of the head congested, the face flushed and torpid. In the article on apoplexy in J. Russel Reynold's *System of Medicine*, we read as follows: "The recovery of a patient depends, doubtless, altogether on the quantity and seat of the sanguineous effusion, *and not on our treatment.*" "If the ventrical be opened, if a large clot be in the pons, the patient will die, but as we cannot be absolutely sure that the patient has got a clot in his brain at all, we must do all we can

for coma which may be due (besides drunkenness, poison and injury) to uræmia. There is, unfortunately, little to be done. The chief thing is to keep the patient quiet." Speaking of the supposed advantages of bleeding in certain cases in which it might be cautiously performed, he adds: "It may be that bleeding from the arm will serve the patient, yet I confess to having no great hope of its being of value to relieve the embarrassment of the venous circulation of the patient, whilst the cause of the embarrassment still keeps its place inside the head. Indeed, my faith is so little that I have never adopted the practice. But we know that a few patients come out of deep coma with embarrassed respiration, and it is possible that bleeding might help more out of it." A little afterwards, he adds: "So far as I have observed, however, the practice in this country must be exceedingly rare, as I have in the whole course of my life seen but one person bled for cerebral hæmorrhage." "The more vividly we realize the fact that a mass of blood is lying abroad in softened and true nervous tissue, the less confident do we feel in our personal power to interfere. *There is, to speak shortly, to my knowledge, no treatment for effusion of blood in nervous tissue.*"

Flint, of New York, expresses his views of venesection in apoplexy as follows:

"In the treatment of cases of apoplexy, an important question is, whether blood-letting shall be employed. If the apoplexy be dependent upon active congestion, and the heart acts with abnormal power, blood-letting is indicated, and the life of the patient may depend upon the prompt abstraction of blood. Notable congestion of the face, a resisting pulse, an absence of hemiplegia, point to a congestion as the pathological condition probably existing. If the patient be young, or below middle age, the probability of this condition, rather than extravasation, is strengthened. *On the other hand, if the apoplexy be dependent upon extravasation, the propriety of blood-letting is doubtful.* It is contraindicated by feebleness of constitution, advanced age, and if the completeness of the coma denote a large extravasation, or if its situation at the base of the brain be denoted by notable disturbance of respiration and deglutition. It will tend to destroy life if the face be pallid,, the surface cold and the pulse feeble. With the symptoms last named, stimulants are indicated. A large extravasation involves loss of blood, and the substance of the brain is anæmic from pressure of the extravasated blood. Blood-letting will neither remove nor diminish a clot. If the extravasation be not sufficiently large, nor so situated as to occasion a fatal attack of apoplexy, the abstraction of blood may stand in the way of recovery from the shock, and the prolongation of life until the clot is absorbed. *There is no reason to believe that blood-letting tends to prevent or diminish the cerebral hæmorrhage.* Cruveilhier, Rostan and Aussaguel have each reported a case in which hemiplegia ensued directly after blood-letting. I have met with a case in which an attack of apoplexy with hemiplegia immediately followed a profuse hæmorrhage from the rectum. Here, as in other instances, blood-letting is neither to be interdicted nor enjoined in all cases. It will be useful o. pernicious, according to the discrimination with which it is employed. *In view, however, of the fact that apoplexy generally involves extravasatiou, the measure is clearly indicated in only a small proportion of cases.*

Trousseau, in his medical clinic, asserts: "I not only abstain from all energetic treatment when the symptoms of cerebral hæmorrhage are slight, but I even refrain from doing so in very grave cases; in fact, in all cases of apoplexy." The following is a summary of his reasons for such practice:

1. Experience taught him that patients do better without blood-letting, purgatives, or revulsives. The hæmorrhage is "*un fait accompli*" at the time when our active co-operation is generally sought, hence our inability to render any service. He asks what influence the above remedies can exercise upon the clot, which is a foreign body present in the brain.

2. He entertains the opinion that "furthermore, far from being useful, blood-letting has seemed to be hurtful; and I believe that *it favors, instead of preventing, congestion.*"

He even expresses the belief that apoplectic phenomena are in some measure more allied to syncope than congestion, and that bleeding is therefore contra-indicated, not demandcd.

This view somewhat coincides with those recently advanced by Niemeyer, who maintains that the apoplectic phenomena do not depend upon *pressure*, but that the paralysis of the functions of the brain is attributable to "sudden compression of the capillaries, producing *anæmia* of the brain substance." A large clot necessarily exercises such capillary compression, and prevents the conveyance of arterialized blood to innumerable vessels upon which many nerve filaments and fangalion-cells depend for their normal supply of nutritive juices. In fact, Niemeyer rejects entirely the old theory that very small clots and extravasations from capillary ruptures can give rise to apoplectic phenomena, "because the escape of blood from the ruptured capillaries can only last till the tension of the contents of the skull equals that of the blood in the capillaries." In accordance with this, the apoplectic phenomena do not follow capillary rupture, owing to the sparcity of the extravasation, and the inconceivably limited anæmia following; the capillary tension is so slight, that the tension of the contents of the skull more than suffice to overcome the mischief, and rapidly place a limit to its results. It is different, however, when an artery gives way, because here the tension required to limit the extravasation is much greater than the capillaries can resist, hence capillary anæmia immediately ensues, the results of which last until the establishment of a collateral hyperæmia more than compensates for the obstruction of the capillaries around the seat of extravasation by which they are rendered impermeable for arterial blood, thus entailing the apoplectic phenomena or the paralysis of brain function. Hence we can understand that static pressure from the clot does not play such an important part as capillary anæmia in the genesis of apoplectic phenomena, and that Trousseau was not far from right in contending that apoplexy was intimately associated with the pathology of syncope, in so far as the existence of brain anæmia is concerned, more than with the effects of cerebral congestion.

Dr. Todd, in his remarks upon bleeding in apoplexy, says:

"There is a practice, unfortunately too common, but which, I think, is every day becoming less common, namely, that of following an attack of apoplexy by depletive measures, very much as a matter of course. However applicable such a mode of treatment may be to strong, young, hale and ple-

thoric subjects, I presume no one will say that it is very well adapted to patients who have passed the meridian of life, whose blood and tissues are more or less contaminated by morbid matters, and with whom a morbid state of the arteries of the brain has already greatly weakened the nutrition of tnat organ.

"With reference to this question of depletion in apoplexy, I would refer to an interesting and very useful work by Mr. Copeman, in which he has collected, from a great variety of sources, a large number of cases which presented the symptoms of apoplexy. Of 155 cases in which the treatment was specified, 129 were bled, and only 26 were not. Of the 129 who were bled, 51 recovered, and 78 died—the recoveries being about 1 in 2½, the deaths 1 in 1⅔. Of the 26 who were not bled, 18 survived and 8 died—the proportion of recoveries being 1 in 1½; of deaths, 1 in 3¼. Eighty-five of the cases were bled generally and copiously, and of these only 28 recovered and 57 died;—in other words, two in every three cases terminated fatally. I am quite aware that the small number of cases not bled casts some doubt on the validity of the conclusion to be drawn from the comparison of the results of the treatment; but the fact that considerably more than half of those treated by bleeding died (and we owe much to the industry of Mr. Copeman for bringing it out) is a highly significant one, and should arrest attention."

After alluding to cases in which bleeding is productive of successful results, and guarding the practitioner against the adoption of this method in others, in which it is contra-indicated, he concludes his remarks upon this subject with the following resume:

"On the whole, then, I think that the results of experience denote that the majority of cases of apoplexy are best treated by purging, shaving the head, and keeping it cool—perhaps blistering, and bleeding is rarely applicable, except to the young, vigorous, strong and plethoric."

Niemeyer, one of the ablest exponents of the modern German school, gives his views upon the treatment of cerebral hæmorrhage, as follows;

"If cerebral hæmorrhage has occurred, it becomes our object to prevent a continuance of the bleeding, to induce reabsorption of the extravasation, and the formation of an apoplectic cicatrix. *But we must not deceive ourselves as to our power, and must understand that we have no remedy for arresting hœmorrhage, or for hastening the reabsorption and cicatrization.* In the treatment of this disease, we are restricted to combating the more dangerous symptoms as well as possible. Not a few patients, in apoplectic fits, recover consciousness during venesection, and it seems as if we could, not unfrequently, prevent the extension of the paralysis from the cerebrum to the medulla oblongata, which is indespensable to life, and so save the patient by bleeding. On the other hand, there is no doubt that, in many cases, bleeding during an apoplectic fit hastens a fatal result; collapse occurs immediately after the venesection, and the patient never arouses. . . ."

The indications for bleeding, he considers, can be very exaetly given

"In order that *as mach arterinl blood as possible may enter the brain*, we must try to facilitate the escape of the venous blood (*venous congestion favoring the anœmia*), without, however, diminishing the propelling power too much. If the impulse of the heart be strong, and its sounds large; if the pulse be regular and no signs of commencing œdema of the lungs exist, we should bleed without delay. Local bleeding by leeches behind the ears, or to the temples, or by cups at the back of the neck, cannot replace general bleeding, but may be used as adjuvants. If, on the contrary, the heart's impulse is weak, the pulse irregular, and rattling in the trachea has already begun, we may be almost certain that bleeding would only do harm—since the action of the heart, which is already weakened, would be still more impaired, and the amount of arterial blood going to the brain would thus be still more decreased."

From the authorities quoted, and the weight of evidence accumulated upon this subject, the expediency of venesection, so long the great sheet-anchor of the treatment of cerebral hæmorrhage, is a question of very doubtful propriety, and is only to be decided upon after a most careful scrutiny and exhaustive analysis of the features of each individual case, and of the indications which would seemingly call for its performance. That it had long constituted the measure upon which the principal reliance has been placed in these cases, no one acquainted with the literature of this subject can doubt. That it is the error in which routinists and the faithful followers of staid systematic writers upon medical science are in constant danger of falling, cannot be questioned. Yet few, realizing the perplexities and intricacies of the diagnostic and pathological bearings of the question, will hesitate as regards the great danger of bold and indiscriminate bleeding in these cases we are considering.

If we have succeeded in inspiring you with the necessary prudence in deciding upon the treatment applicable to cerebral hæmorrhage, and have convinced you that venesection is not the *sine qua non* which is immediately to be resorted to as soon as a diagnosis of cerebral hæmorrhage has been made, I am more than satisfied, as it is not my desire to indoctrinate you with the views and theories of any particular school, seeking only to place at your command a collection of the necessary facts from which, after a patient, industrious, and earnest reflection, you must draw your own conclusions and conscientious convictions.

It will not avail any man to base an apology for any particular line of treatment upon the argument that if he sins, he does so in good company, having the weight, sanction, and authority of the vast majority of the profession in his favor. Our conscience can alone constitute the stronghold in which our reasons for action are well-nigh impregnable, provided we manfully act only *when we have a right to do so*—that is, after a most careful investigation of the question, when, with our opinions matured and unbiased, we act according to the best lights we have been offered. Presuming therefore a resolution of our doubts as to the vexed question of treatment in these emergencies, we must not rest upon the fruits of the satisfaction, which never fails to accompany the triumph achieved in sincere efforts expended in overcoming difficulties, and reaching a substantial ground upon which the personal opinions and scientific convictions are founded. We must be sure not to be led astray in our diagnosis, upon which a safe prognosis and judicious treatment can alone be ventured. By the deductive method, in doubtful cases, we must reason, until we can diagnose by exclusion, the pathological interpretation of the apoplectic phenomena. Every organ must be interrogated, every symptom analyzed, the history of the case care-

fully scrutinized, ere we can obtain reliable data upon which to rest. Cardiac, pulmonary, or renal diseases, the age of the patient, the gouty, syphilitic, or rheumatic diatheses, the condition of the muscles and of the peripheral arteries, the persistency of the symptom, family history, are of great significance and constitute reliable information, without which no diagnosis can rest with safety. Cardiac and pulmonary lesions, or the previous existence of endocarditis, would strongly point towards emboli in the cerebral arteries, especially in the left arteria fossæ Sylvii, which, of all others, seems to be one of the principal seats of obstruction, almost by selection we might venture to say, in ignorance of any anatomical explanation of this common occurrence, which should never escape our attention in post-mortem investigations. The age of the patient is essentially important, knowing, as we do, that in persons advanced in years, atheromatous degeneration of the arterial coats in the common cause of thrombosis—a condition so apt to be attended with symptoms of chronic brain disease in old persons afflicted with atrophics oftening. The poisons of syphilis, rheumatism, and gout play an important part in these cases by the tissue-poisoning produced; the two latter especially, through the irritation they occasion in the urinary organs, and the improper elimination through that channel of excrementitious substances, become the cause of brain disease by qualitative blood changes, through which source the nervous tissues suffer the results of faulty and improper nutrition.

The condition of the peripheral arteries is only of importance in the clue it furnishes us to the condition of the cerebral vessels, upon which however too much reliance, for reasons previously assigned, is not to be placed. The persistence or variation of the symptoms is of great assistance to us, for the following reasons: Certain authorities maintain that change in symptoms,in chronic cerebral disease, the appearance from time to time and disappearance of paralysis, is almost pathognomonic of softening. This fact must be admitted with a certain allowance, as such phenomena are explained by the re-establishment of the collateral circulation; but when a large, important artery is plugged, the symptoms no longer appear and disappear, as the functional disturbances will then necessarily remain permanent. The seat of thrombosis and embolism is also to be taken into consideration, as the collateral circulation is more readily or easily effected, according as the obstruction of the circulation is beyond or below the "circle of Willis."

The state of the muscles, according to Dr. Todd, is a matter of no trivial significance in cases in which paralysis follows apoplexy, both as to their apparent condition, and their electric contractility. His views may be briefly enumerated as follows: 1. Muscles *relaxed* completely immediately after an apoplectic seizure, point to an atrophic state of the brain. 2. Muscles contracted *immediately* after the fit, correspond with a state of brain irritation. 3. Muscular rigidity occuring *late*, is indicative of an attempt at cicatrization;—this spastic condition of the muscles acquires additional welght if associated with muscular atrophy. In muscles affected with early rigidity, the galvanic excitability of the unsound limb is much increased, and in cases where complete relaxation is manifested, the galvanic excitability of the paralytic limb is much less than that of the one on the opposite side not paralyzed.

Now, gentlemen, we will conclude with a few remarks on the proper treatment in cerebral hæmorrhage. From the evidence of statistics quoted, the views of the eminent authorities cited, strengthened as they are with weighty arguments; from the accumulated strength of our own convictions; from the fact that when we are called upon for help the damage is already accomplished; from our inability, without available therapeutics, to remove a clot from the brain, or to remedy the evils of the laceration, destruction and disorganization it has effected whilst plowing through the delicate structures of the brain, in the midst of the bloody wreck of the neuroglia, ganglion cells, and nerve filaments,—we are compelled to admit our helplessness, and realizing the hopelessness of benefit accruing from our efforts to ameliorate a destruction already achieved, we must desist from all measures which might aggravate the critical condition in which we find the unfortunate victim of cerebral hæmorrhage. But are we to remain passive witnesses, and with folded arms await our patient's death? By no means. Whilst we must not over-estimate our ability, we are justifiable in essaying what an enlightened pathological knowledge holds forth as inducements of success. We must obviate the tendency to death—as far as we may be able—and we must battle with those complications and accidents which may arise. In some cases we may bleed "in spite" of the apoplexy,—that is, admitting that in given cases we may have conditions of depression co-existing with those of irritation, as illustrated in an atrophic brain, where the establishment of the collateral circulation becomes excessive, producing the symptoms of partial hyperæmia, the so-called "*Herdsymptome*" of Griesinger, thereby causing danger of recurrence of the extravasation, or productive of dangerous œdema. In such cases a moderate venesection, through the mechanical relief it affords, might be the means of *srving life.* This corresponda with Niemeyer's advice, to bleed in certain cases of pneumonia, "in spite of the pneumonia," which pneumonia is a contra-indication for bleeding. He cites cases in which the collateral hyperæmia in healthy portions of the organ becomes a source of such danger through consecutive œdematous infiltration that not to bleed would be to sacrifice the patient. Here the author clearly means to bleed in spite of the disadvantages accruing from loss of blood in inflammatory diseases, in order to obtain mechanical relief by the diminished arterial tension produced in the hyperæmic portions of the lung endangered by too violent fluxionary hyperæmia. Admitting, therefore, the possibility of a *primary* atrophic condition of *depression* co-existing with a *secondary* hyperæmic state of *irritation* in the same brain, based upon well understood and universally admitted pathological laws, we would unhesitatingly bleed in *some cases,* carefully to be selected and discriminated, and in which we would not dread the effects of the additional shock of venesection. This we the more readily admit in consequence of the danger to be anticipated from too violeut an establishment of collateral fluxion, which, by its pressure, when accompanied with excessive resulting œdema, the civil effects of which are sometimes conveyed to the healthy hemisphere in spite of the protection of the falx cerebri, intensifies the patient's danger and diminishes his chances of

recovery. The anatomical arrangement of the falx has been considered of much importance by Niemeyer, who lays stress upon the fact of its dipping deep between the *posterior* portions of the hemispheres, thereby affording greater immunity from pressure exercised in that situation than is the case when tumors or extravasations are situated in one of the anterior lobes, where the attachment of the falx to the crista galli furnishes more facility for the conveyance of the consequences of such disturbing causes from one anterior lobe to the other.

In the vast majority of cases, therefore, we would not bleed; and here we will divide our patients into two classes, requiring totally different modes of treatment. In those who are affected with complete hemiplegia, suddenly, without loss of consciousness, and in whom, therefore, we have no diffculty in differentiating white softening from sanguineous extravasation, there is little to do beyond placing the patient in a horizontal position, avoiding all sources of excitement, giving him the benefit of the best hygienic measures, and perhaps a brisk purge. In the second class of cases, those suddenly rendered completely hemiplegic, with loss of consciousness—provided the pulse is strong, full, firm and slow, the heart healthy, and there are evidences of great congestion, as evinced by flushed face and turgid skin, injected conjunctive —we may undoubtedly take a moderate quantity of blood by cups applied to the occiput, and in some instances, should the symptoms of irritation become very threatening, resort to a moderate venesection. In case the patient has been seized with a fit during a long and luxurious meal, knowing how a disturbed stomach may mechanically provoke excessive cerebral hyperæmia, we would be justifiable in administering a stimulant emetic, in the selection of which remedy we must aim at combining rapidity of effect with the avoidance of postration. In cases in which a *medium* course is to be pursued, the head may be shaved, cold cautiously applied, and the bowels freely moved, avoiding, of course, excessive purgation. In cases in which the patient is sinking, death by syncope impending, sinapisms, stimulants and restoratives are to be energetically used. Such cases, it is needless to add, you will recognize by the rapid, feeble, irregular and intermittent pulse, pallor of the countinance, and coldness of the skin. During the stage of so-called reaction, when the dangers of encephalitis are to be apprehended from the presence of the clot, we must energetically essay the effects of cold to the head, warmth to the lower extremities, and perhaps the internal administration of salines and of the iodide and bromide of potassium. Having no confidence in the beneficial influence of mercurials to produce the absorption of the clots, and believing that they would only be potent to produce a cachexia which would thwart the vis medicatrix naturæ upon whose kind endeavors we must hopefully trust for the absorption, disintegration, and encysting of the clot, we entirely eschew them from our practice. As the violence of this stage subsides, blisters, pustulation, or other counter-irritants, might, by their reflex influence, be of importance. In the treatment of the hemiplegia, we strictly avoid the administration of strychnia, accepting, as we do, the opinion of Dr. Todd, that a sort of elective affinity for the strychnia is exercised by the portions of the nervous substance affected, and the most baneful consequences may result without any compensating advantages. The benefits of faradization, properly employed, cannot be questioned, and it forms one of the resources upon which the most reliance can be placed for treatment of the hemiplegic symptoms. Country air, mild diet, and the strict observance of hygienic laws, are of essential importance.

Before we conclude we have yet one recommendation to offer in reference to our timely interference in certain cases and the *prevention* of cerebral hæmorrhage, which, once *un fait accompli*, makes our inability to render much service to our patients oftentimes so sadly evident. Unfortunately, the physician is sent for too late, and his hands are tied. This is, however, not the case when, in the course of practice, cerebral hyperæmia attracts our attention, and should excite our earnest endeavors to avert the threatening cerebral hæmorrhage. Here is a critical moment for the patient, as upon the skill and decision of his physician depend his life and his rescue from imminent danger. It is in such instances that the votaries of the healing art feel inspired with enthusiasm and admiration for the science of medicine. By an acquaintance, on the part of the physician, with the laws and mode of causation of fluxionary and passive cerebral hyperæmia, patients will be saved, as if by magic, from destructive lesions. We deduce from the statements made that, first in all cases of *active* or *fluxionary* hyperæmia of the brain, whether occasioned by undue increase of cardiac action, obstructed arterial escape of the blood from the aorta into other branches, vasomotor paralysis; or, in the second place, in cases of *passive* or *congestive* hyperæmia, whether superinduced by compression of the vena cava descendens and jugular veins, or by energetic expiratory movements while the glottis is contracted by cardiac affections with functional disturbances without compensating mnscular hypertrophies, are by compression of vessels in and disturbances of the pulmonary circulation—unless promptly and energetically treated, cerebral hæmorrhage is greatly dreaded. To prevent this, the measures best calculated to remove the hyperæmia, or at once to be resorted to, and in many of the instances referred to, the mechanical relief afforded by a judicious and well-timed venesection is oftentimes as astonishing as it is beneficial. Various other appropriate remedies, which it is not now necessary to enumerate, will aid us in our tentative endeavors to avert the evils of cerebral extrassation, which, when once it has occured, in many cases makes the physician's helplessness as painful as it is mortifying.

Extracts from Current Medical Literature.

NERVOUS FORCE.

BY DR. BROWN-SEQUARD.

ONE OF A SERIES OF LECTURES DELIVERED AT THE LOWELL INSTITUTE, BOSTON.

The lectures I have to deliver here are on a subject which is full of interest, and which deserves more study than it has obtained. The various effects produced by nervous force are certainly, even for persons who have nothing whatever to do with medicine, full of interest, and I may say of impor-

tance. I will go further. I have no doubt that persons who have not at all engaged in the medical profession could do more perhaps than physicians, in regard to discovering certain of the peculiarities of nervous force. Physicians, unfortunately—I speak of myself as well as of others—are biased. Their bias prevents progress. They have received an education which has given them certain notions, and those notions prevent a free examination of certain questions. The unbiased minds of persons who have not studied medicine, or who, if they have studied the foundations of it, have not engaged in the practice of the profession, permit them to investigate and discover. Perhaps as a result of the lecture that I shall deliver here, it will be given to some of you to push forward discoveries in that line.

Before entering into the proper subject of this lecture it is essential to pass in review some of the elementary questions of physiology. I shall do it very rapidly. There are two elements in the nervous system which are united together, but which are, however, absolutely distinct, the one from the other. One consists in the nerve cell, which you see presented on the board. I have made it nearly round, but it is very rarely that it is so. That cell has starting from it a number of filaments. In the spinal cord and in the brain those cells generally have one element entirely different from the others, and that element is similar to the other element we find in the nervous system; that is, fibers. There are therefore two kinds of elements in the nervous system, the fibers and the cells, with their prolongations. What becomes of those prolongations is not known, and it may perhaps remain always unknown to us in this world. It is to be feared that the power of our microscopes will remain pretty nearly what it is, and if that be the case, then we shall never know much more as regards the ramification of those fibers. But the remarkable point of which I have not yet spoken, and which you ought to keep in mind, is that the fibers of the nervous system are united with those cells. Within the nervous centers, that is, the brain and spinal cord, there is but one of these fibers united with cells. In other parts of the body there are cells which have two real fibers starting from them besides the ramifications.

A DEATH-BLOW TO ANIMAL MAGNETISM.

Now the nervous force is produced in those elements of the nervous system. I have no need, of course, to give a definition of nervous force, or nerve force, as you will perhaps prefer to call it. It is that force which manifests itself in nervous actions. The nerve force belongs only to the elements I have described. Are there any instances in which we can find nervous force without the existence of those two elements? This question is now decided in this way. There are animals in which, and there are circumstances in man in which, the nervous tissue does not exist evidently in the way I have described, and still there is a nervous force; so that it appears that nervous force can exist without the nervous elements. There are conditions, especially in monsters, where the spinal cord, instead of being organized, is a fluid in which elements resembling those of the nervous system are not organized, and still there is nervous action, and therefore, nervous force. In some low forms there are also tissues which do not represent at all the known elements of the nervous system, but in which, nevertheless, there is nervous action, and therefore nervous force. A professional friend in Paris has shown that there are certain instances of disease in man in which the nervous system is so transformed that it is hardly recognizable, and yet there is every probability that it acted, and that nervous force was manifested.

But the great question is not there. The great question is whether the boundaries of the nervous system are also the boundaries in health of that nervous force. In other words, can the nervous force spring out of the nervous system to produce some action? As regards this, I may say that there are no facts to prove it. You can easily understand that if I am right, this is a death-blow to what is called animal magnetism. But this is a point that we will debate more at length by and by. All I wish to say in this introductory lecture on this point is that there is no likelihood at all that nervous force can get away from the limits which are constituted by nervous tissue. There is no question, however, that nervous force can manifest itself outside of the boundaries of the nervous system; but it manifests itself often after having been transformed into another force. It is well known that nervous force is transformed into motor force. This I am doing at present. It is owing to motor force that I have any voice at present. This transformation into motor force takes place at every moment of our lives. Other transformations are also of great interest. You well know that there are fishes that possess an electric apparatus. In them the nerves which go to the electric apparatus are enormous. And those nerves convey nervous force, and not electricity. As soon as the nervous force is felt in that electric apparatus, electricity is evolved. Electricity is a transformation in that case of nervous force, just as we know that heat can be transformed into electricity or electricity into heat, heat into motion, and motion into heat, &c. There are animals which are phosphorescent, and which are so under an act of their wills, so far as we can judge, and under the influence of the nervous system; so that light also can be evolved as a transformation of nervous force. There are cases of consumption in which light has come from the lungs. The fact has been pointed out by Sir Henry Marsh and other physicians. The light appears not only at the head of the patient, but it may be radiated into the room. It has been considered that the light was only a peculiar effect of the mucus that came from the lungs of the patient. It is not likely that this is the case, because mucus in greater quantity is evolved, and all sorts of mucus, from the chests of the people, every day, without any such phenomenon. I have read the history of each individual case of the kind so far as I have been able to get it, and in every one of the cases the patient, I find, were in a terrible state of nervousness, so that I cannot but believe that the production of light was, in a measure at least, owing to the transformation of nervous force.

HEAT, ELECTRICITY, AND NERVOUS FORCE.

There are great transformations also of another kind. You well know that nutrition, which implies chemical change in our system, as well as secretion, which also requires chemical change, may take place under the influence of the nervous system. I shall show this more fully in a subsequent lecture. When this transformation occurs, it is quite evident that it is the nervous force that has been transformed into a chemical agent.

Is nervous force ever transformed into heat? There is no doubt whatever that heat is evolved from our system, and in a great measure owing to the action of nervous force; but the question is whether it goes through other transformations. This is a point which it would be very interesting to determine, but which at the present state of our knowledge is not yet ascertained.

Now that we have passed in review all those facts showing that nervous force can be transformed into the other forces of nature that we know, almost all or them, the question arises, "Can all the forces of nature be transformed into nervous force?" This is one of the greatest questions that we could undertake to consider. Unfortunately, the elements we have for solving it are as yet very few. We do not know positively yet—at any rate I do not know, and I have read considerably to find if the question is solved—we do not know positively yet whether electricity can be transformed into nervous force. You can easily understand that if it were possible to have such a transformation, a great many weak people would receive manifest advantage in being galvanized. Therefore the question is of great importance. There is no doubt at all, for this has been established by a good many experimenters, that the elements of the nervous system benefit in their nutrition under the influence of electricity and galvanism; but a direct transformation of electricity into nervovs force is not yet proved.

As regards light, very little is known. You well know that nervous disturbance will come from the action of light. There is no doubt whatever about it. Light is certainly a very powerful agent, and a most useful one. Indeed, it is rather too much forgotten that light is almost essential to life; but we do not know if there is any direct transformation of light into nervous force. It seems to be so in the retina; but I cannot employ any other phrase than the phrase "it seems to be." It would not appear to be difficult to solve the question by experiment, and a solution would be of considerable importance.

There are other forces which certainly are transformed into nervous force. There is no doubt as regards motion. Motion increases nervous force in the limb without the least doubt. What the French call *massage*, which is shampooing, pounding or kneading of the flesh, increases nervous force without doubt. But there is still some little doubt whether it is not through an improvement of nutrition, through a chemical change, that the influence takes place.

There are other forces, heat, for instance, which perhaps are transformed into nervous force. The application of heat to children is exceedingly useful to help their development. If the air they breathe is cool, and heat is applied to their limbs, but not so much to their body, they certainly grow faster. There is no question that in northern climes, children who are not well clad, and are not well cared for in regard to the heat surrounding their body, do not grow so well as children who are submitted to the influence of heat. There is one thing which in this country especially is most hurtful and dangerous, and that is heat applied to the lungs. it is perfectly well known that the mortality of children in this country is enormous in the summer months, and that chiefly through the influence of heat on the lungs and on the belly. Digestion and respiration are disturbed, and death comes, as you know, too frequently. More care could be easily attained in that respect, and it may be that I shall have a chance to speak of it in one of the last lectures of this course.

A DEAD OX KEPT FIFTY-SIX DAYS WITHOUT PUTREFACTION.

Some physiologists have considered that nerve force is nothing but that which many physiologists admit under the name of vital force. The theory which is most important in this respect has been put forward by M. Flourens. He considers that a spot in the medulla oblongata is the focus of vital force. There is, you know, a spot which is pierced by the matadors in Spain when they wish to kill a bull immediately. Death occurs instantly. This kind of death is a very interesting one. When we perform the experiment in the laboratory we find that the animal is so instantaneously and so effectually killed that there is no struggle whatever. The animal lies there, apparently having lost every vital power, and it is certainly a great question to know what becomes of the nervous force in those cases. It seems to have been lost altogether. I say it *seems*, for if we examine a little further we find that it is only dormant. It is accumulated in certain parts of the body in immense quantity. The nervous centers have lost it almost altogether, but the nerves are quite rich in nervous force, so much so that I have kept one of those animals for nearly 56 days in my laboratory without any trace of putrefaction, and at a temperature which varied between 45° and 65°. The lack of putrefaction depended certainly on the long presistence of nerve force after death. There is in these cases a great mystery however. This nerve force we can detect very easily. If we galvanize a limb we find that there is a nerve force there, and that for a long time after death. But how is that it suddenly disappears from the nervous centers, so much that respiration, circulation, and all voluntary and involuntary movements cease? To answer this question would require no little study and investigation, and the person making it would have much to find that would be interesting. We find, however, in making these experiments that we can take away the part which has been considered as the focus of life, by employing certain simple precautions, without destroying life. At the College of Surgeons in London, in one of my lectures there, I had tried to show that death in the cases referred to is immediate. I had an animal—a guinea pig—on which the experiment was to be performed. In making the experiment my knife slipped and went all around the part, carrying away more than I had intended. The pig survived three or four days until my boy, trying to make the pig squeal drowed it. The vital focus, so called, does not deserve the name; for there are many cases in which it has been destroyed, and life persists. Therefore we cannot look upon it as being a center for vital force or nervous force.

This leads me to examine now the question. What are the places of production of nervous force? Those places of production, I may say, are as extensive as the nervous system. For a long time physiologists had considered that the cells were the only parts that produced nerve force. But I have ascertained and proved, and I think most physiologists now admit, that nerve fibers can also produce nerve force. In experiments consisting in injecting blood into a limb which has beeu separated from the body for a long time, I have ascer-

tained the nervous force which had disappeared has been reproduced. So that it is clear that nerve fibers can engender nerve force. If we seperate a nervous center from the nerves we find that in four days the nerve has lost its power altogether. It seems, therefore, that something came from the nervous center which was useful in the production of forces there. But it is clear, too, that there are other forces reproduced in the part. If we allow the part to receive more blood the injection will reproduce nervous force again. I have kept a nerve alive apart from the body for 40 hours by injecting blood in it. The nerve force, even in the brain, can be invigorated when the brain has lost all power and is separated from the body. An injection of blood reproduces nerve force again, and all the activity of the brain when in the animal is found to be manifested. In one case, that of a patient of mine who had had a dissection of a nerve, the nerve continued to act spontaneously for four days, and the muscles to which that nerve went were in contraction for the same length of time, owing to the persistence of life and action of that nerve separated from the brain. After four days the transformation which we know can take place in the nerve tissue had destroyed nervous activity, and the muscles then remained quiescent, completely deprived of action.

There is an organ in the body whose functions have been very much discussed. That organ is the cerebellum. In man it is a very large organ indeed. I shall not discuss its functions here, but I will say that there is no doubt that the cerebellum is one of the principal foci, one of the principal places where nervous force is produced. In many animals the principal place is in the spinal marrow. But in man the cerebellum is the great focus of the production of nervous force.

POWER OF OXYGEN, STRYCHNINE, AND THE WILL.

What is now the agent of production of nervous force in our blood? It is clear that blood itself must be necessary to the production of nerve force. Still for a time the oxygen alone which is carried by the blood may suffice. Oxygen, even when the blood seems to have been taken away altogether from the part, can give some nerve force to the nervous system; but there is a medicinal agent which has immense power in producing nervous results. When the spinal cord of a frog has been washed of every drop of blood, when injections have been made of pure water so as to carry away every particle of blood, if strychnia is put on the spinal cord, in a very short time the amount of "reflex power," which is a manifestation of nerve force, is very much greater than it was before, showing that strychnia had increased that power. This is the only fact we know, which clearly proves that a medicine, putting aside oxygen, can have such a power, and a power, indeed, which is very great.

What is the power of our will on the nerve force? This is a question which a great many patients every day ask themselves. There is no doubt that nerve force is very little under our will. It may be an admirable provision of nature. It may be that we would spend it very foolishly, as we do spend many other things. Still there are circumstances when the deficiency of will power is really painful, and in patients in whom the amount of nerve force is immense. I have tried to measure the amount of nerve force in a frog. I have ascertained that a frog could lift a weight of 20 grammes to a point which was about a line and a quarter, 600 or 700 times in an hour and a quarter. This is an immense amount of nervous force, and manifested, too, when the spinal cord was no more receiving blood, when there was no more circulation. In this case the frog was beheaded. Compare this with the case of a frog having its head. The frog with a head, after a very short time, could not move at all willfully; while still the reflex action, as we call it, an irritation of the skin, determined a strong movement. There may be, therefore, in certain circumstances, an immense amount of nerve force accumulated in the system. I would not say that there is no more production immediately after the cessation of circulation. I had not washed the vessels. There was blood left there; still there was not much of it, and it was not charged with oxygen after a time.

There is an immense difference as regards the amount of nervous force that remains in the system after death according to many circumstances, and especially according to temperature. If we have considerably diminished the temperature of animals having a great heat, such as we have, and we then kill them by means that will not bring on convulsions and an expenditure of force, we find that the amount of force that remains is coneiderable, and that it will remain there a very long time. In cold blooded animals, when the temperature is very near freezing point, the amount of nerve force that remains in them for a very long time is also immense, while at high temperature the transformation of nerve force into chemical force is very rapid, and then the expenditure of nerve force is total after a time, which is not very long.

The principal question I have to examine in this lecture, however, is the one I shall now speak of: namely, is there unity of force or only one nerve force, or are there many in our system?

I have for a long time tried to prove that there is unity of nerve force. If we spend force, either in the way I am now doing, by mental more than by physical labor; if we spend force with the pen in hand, when we are studying quietly at the table, we find, after having been at work three or four or five hours, that the nerve force that remains for physical exercise is diminished. We have drawn force from a focus which is the same that gives it for mental action and for physical exertion. If, on the other hand, we walk 20 miles and find ourselves physically tired, we find then that very little nerve force remains for mental action. There are facts, however, which seem to be in opposition to this, and those facts will be fully explained in the last lecture, when I come to explain the laws of production and expenditure of nervous force. I may say this much, however, just here, that it is perfectly well known, contrary to what I have said, that we can do no better with our brain if we have had some exerciee than if we have had no exercise at all. But it is simply that a certain amount of exercise has led to the production of nervous force by improving the circulation, improving the secretions, improving respiration, and improving, in fact, all the great organic functions through which the secretion of nervous force takes place, so that we have become richer in our force because of the exercise we have taken physically. There is no doubt, therefore, that moderate exercise will lead to a production of nerve force and facilitate the exercise of the brain power; and there is no question that if we draw too much of the nerve force of our

system, if we draw a great deal more of it than can be reproduced during a certain time; if we walk, for instance, very fast for five or six hours, we are then unfitted for mental work and for a good many other things. Our respiration becomes difficult. Our heart, after having beaten with much rapidity, comes to beat very slowly. We are weakened in every organ whose action depends on nervous force. There is no doubt, therefore, that there is a common focus of nerve force on which we draw for any of the activities of our system employing nerve force. Looking through a microscope for several hours, as micrographers know full well, is a cause of great fatigue, and renders mental work or physical labor thereafter more difficult.

THE UNITY OF NERVOUS FORCE.

There is one experiment that shows that nerve force is distributed, as galvanism would be on a cylinder. Suppose a cylinder in the shape of an arm; suppose that this is charged with a certain amount of electricity, and suppose that this arm or cylinder is then cut in two just in the middle of its length; there would be in each half of the arm then an amount of electricity which would be just one-half of the amount that existed before. Suppose that the whole arm had manifested a force equal to twenty measures, the half of the arm would manifest a force equal to ten. So it seems to be with the nervous system. If we divide the cord across, as in a bird, behind the upper limbs, we find that the bird cannot make use of its limbs as before. The amount of force is not sufficient in the upper part of the nervous system. So it seems that nervous force is distributed all over the nervous system, and that if a cause operates to divide the nervous system into halves, each half has only the amount of nerve force which it had before.

There is one objection in appearance to the view that there is unity of nerve force, and that is that the brain is a double organ; that we have two brains instead of one. About that alow me to say that although we have two brains it is pretty much as if we had but one, as by the force of our education one only is raised to power. The other is left with very little power indeed. It would be very easy, as I may hereafter show, to develop fu'ly the power of the two brains by proper education. But if we have two brains there is no objection to the view that there is a unity for the nervous force. It is no objection because these two brains are united. There is communication. Every part of our nervous system is in communication with the other. We cannot touch a part of the skin or any other part of our system without producing a commotion all over the nervous system; in the same way that we cannot stamp our foot on the ground without shaking the whole world, and not only our world, but the rest of the universe is shaken by such a simple thing as that. Of course, a very little shaken but shaken nevertheless. There is no doubt that any action on any part of our nervous system is felt everywhere through it. And that is the reason why so many persons suffering in their nervous system cannot have an excitation brought on any part of the body, as it increases the trouble where it exists.

A few questions remain to be answered before closing the lecture. One is, how happens it that there are so many differences in sensation if there be but one kind of nerve force. This is not a great difficulty. The variety of sensations has no organic cause, of which I may have an opportunity to speak in an other lecture. The nerve force is only an agent, most likely the vibration of a certain agent, and the vibration according to the location will produce one effect or another. The parts of the nervous system are not all alike; they certainly differ one from another, and the vibrations may be greater or less, so that we can easily be reconciled to the variety of sensation, although we admit but one kind of nerve power.

There is another question. That certain fibers seem to act on muscles, and others seem to restrain the nervous action. This is a point of such great importance that I shall give a whole lecture to that subject. When cells are active, either morbidly or naturally, an irritation coming from a nerve and acting certainly through nerve forces may be sufficient to stop the power of that nerve cell. That seems to be an act completely different from that by which a muscle, for instance, is put in action by the vibrations taking place; the transformations of nerve force taking place in the nerve, and also all the other actions that I spoke of—the emission of light and electricity. All these things may seem to imply some different action. But if you admit the great doctrine which exists now in science, and which has revolutionized natural philosophy as well as chemistry; if you admit that there is never a loss of force; tnat force is accumulated and that it is only transformed when it disappears, then you can easily admit that nerve force has been transformed in those various organs into some other force and that there lies the cause of the different actions of whlch I have spoken. But the difficulty exists, however, for that special case in which an action ceases in the cell. Suppose a person to have an attack of epilepsy. His head is thrown to one shoulder and he has not yet lost conciousness, and some one comes and draws the head to the other shoulder and the fit ceases. Well, there has been in that case an irritation starting from certain nerves when the head was moved, and this irritation goes to the cells of the gray matter that were active in producing the convulsions and stops the action of those cells. But the stopping of the action of cells is something different from the production of action. Therefore it may seem quite different. But we may admit, however,—and it would be most important indeed for chemists to make researches in that respect—we may admit that a chemical change is the result of that transformation; that the nerve force is transformed into a chemical force, and that chemical changes occur in the cell, very rapidly and in great quantity, just enough to replace the whole amount of nerve force that was acting before. Therefore, there is no reason *a priori* not to admit the possibillity and the probability that nerve force is the same in every instance; that it affects cells of gray matter to stop them in the same way that it can put cells into activity; in the same way that it can put muscles into activity, and that it can put an organ into activity.

PATRICK FANNON, of Cincinnati, lived seventy hours after sustaining injuries generally supposed to be instantaneously fatal; his neck not only being broken in such fashion that the spinal cord was completely severed at the junction of the sixth and seventh cervical vertabræ, but the vertabræ also being fractured by the shock.

Proceedings of Societies.

AMERICAN MEDICAL ASSOCIATION.

The twenty-seventh annual session of the National Association, convened at Detroit, June 2d, 1874, The meeting was called to order at the Music Hall, at 11 o'clock, a. m , by President J. M. Toner, of Washington, and opened with prayer by the Right Rev. Dr. McCrosky, of Michigan. Dr. W. Brodie of Detroit, chairman of the Committee of Arrangements, welcomed the members of the Convention to Detroit, and tendered them the hospitalities of the city.

Dr. Brodie, chairman of the Committee of Arrangements, announced that many of the prominent members of the profession in Canada had been invited to attend, and moved that they be given seats, which was unanimously adopted.

Dr. Richardson of Canada, being introduced as spokesman of the delegation, referred to the unlooked for honor conferred upon him by the selection. After some routine business, the President, Dr. Toner, then read the annual address. The address was arranged in the form of notes, and was replete with practical and statistical information.*

SECTION ONE.—At 2 o'clock the several Sections were called to order by their various Chairmen. In the section of Practical Medicine, Materia Medica and Physiology; Dr. Bulkley, of New York, gave notice that he would read a paper on Ekzema. Dr. Farnsworth, of Iowa, then read a paper on the Therapeutic uses of Ammonia.

SEC. 2.—Obstetrics and Diseases of Women; Dr. Theophilus Parvin, presented some instruments for inspection. Dr. Beck, of Ft. Wayne, read a paper on the Theory of Generation.

SEC. 3.—Surgery and Anatomy. This Section was presided over by Dr. Gross; Dr. A. Dunlap, of Ohio, read a report on Ehchondroma over the Sternum; Dr. E. M. Moore then read a paper on Epiphyseal fracture of the Superior Extremity of the Humerus. Dr. Lewis A. Sayre presented a report on Fractures, giving a verbal abstract of its contents. Among other things he stated that shortening should never occur. This led to one of the most interesting debates of the session, in which we think the gentleman from New York was considerably worsted by the St. Louts delegation.

SEC. 4.—Medical Jurisprudence and Chemistry. This section adjourned without transacting any business.

SEC. 5.—Public Hygiene. Several papers were read having reference to the establishment of State Boards of Health, and of a National Sanitary Bureau.

SECOND DAY.

The Music Hall having been found too small for the accommodation of the Association, the place of meeting was changed to the Opera House. The Meeting was called to order at 9:30, a. m. by the President. The report of the Judicial Council, in relation to the revision of the Code of Ethics, was read by Dr. N. S. Davis, chairman of the Committee, to whom it had been referred.

The programme of the day was read by Dr. Brodie.

*Extracts will be published in a future number.

REPORTS OF SECTIONS.

SECTION 1.—Practice of Medicine, Materia Medica, and Physiology. Dr. N. S. Davis read the annual address on practical medicine. The Chairman read the report of the committee on the cultivation of the cinchona tree in the United States. Dr. W. M. Carpenter, official reporter of the section, read a paper on the "mechanism of the encephalic circulation, by Dr. Vance, of New York. The Chairman announced the order of business for the following day, viz: Consideration of the President's address; hydrophobia, by Garrish, of New York; chronic catarrhal inflamation of the pharynx, pharyngo-nasal and nasal cavities, by Rumbold, of Missouri; a new anti-pruritic remedy, by Bulkley, of New York.

SEC. 2.—Obstetrics and Diseases of Women. This section was presided over by Dr. T. Parvin, of Indiana. Dr. Bontecue, of Troy, New York, read a paper on the inverted uterns, referred to the committee on publication. A new form of pessary was exhibited by one of the members for Dr. Scott, of Canada.

SEC. 3.—Surgery and Anatomy. Dr. Gross called the meeting to order, and announced as an especial order of business the continuance of the discussion provoked by Dr. Sayre's paper on fractures.

SEC. 4.—Dr. Kedzie, of the section of hygiene, read a paper on the "Influence of Drainage on the Public Health." Papers on similar subjects were also presented by Drs. Cabell and Bell.

THIRD DAY.

The association met in general convention at nine o'clock, A. M. A committee reported favorably on the recommendations contained in the President's address. A set of resolutions were drafted in memory of Dr. Miller, a former President of the association. A resolution was passed favoring the erection of a statue to McDowell, the Ovariotomist Dr. Parvin read his address on uterine hemorrhage and transfusion. Dr. Bell, of Brooklyn, read a paper on "Waste of Life." Various reports were received, and referred to committee on publication.

The various sections reassembled at half-past two, P. M. In the section on practice, etc., Dr. Bulkley gave an account of a new anti-pruritic remedy, which is a combination of chloral, gum camphor, and rose ointment. Dr. Garrish, of New York, read a paper on hydrophobia. Dr. Gray made some remarks on the relation of physiology to practical medicine. Dr. Seguin entered into an explanation of his method of mathematical thermometry. In the section on obstetrics, ovariotomy and transfusion were discussed.

Dr. Beard, of New York, read a paper on the uses of electricity in surgery, before the surgical section.

War was again waged on the fracture question. In the section on medical jurisprudence, Dr. E. Lloyd Howard, read a paper on the "Legal Relations of Emotional Insanity."

FOURTH DAY.

The last general session of the Association commenced at 9 o'clock, A. M., Friday. After the usual report, complimentary resolutions, etc., the following officers were chosen for the ensuing year:

President—W. K. Bowling, of Tennessee.

Vice-Presidents—W. Brodie, of Michigan; J. J. Woodward, of U. S. Army; H. W. Brown, of Texas; H. D. Didama, of New York.

Section on Practical Medicine, Materia Medicine and Physiology—Austin Flint, of New York, Chairman; J. K. Bartlet, of Wisconsin, Secretary.

Section on Obstetrics and Diseases of Women—W. H. Byford, of Illinois, Chairman; S. C. Busey, of D. C., Secretary.

Section on Surgery and Anatomy—E. M. Moore, of New York, Chairman; J. L. Latimer, of Maryland, Secretary.

Section on Medical Jurisprudence and Chemistry.—J. Cochrane, of Alabama, Chairman; G. A. Moses, of Missouri, Secretary.

Section on State Medicine and Public Hygiene—H. J. Bowditch, of Massachusetts, Chairman; H. M. Baker, of Michigan, Secretary.

After a vote of thanks the Association adjourned. Louisville has been selected as the next place of meeting.

Editorial.

THE GREAT BRIDGE.

It is a matter of much rejoicing and congratulation in the city, and in fact throughout the whole mercantile world, that this stupendous undertaking, having overcome almost insuperable obstacles, is an accomplished fact, and that the approaching Fourth of July will witness its dedication to the commerce of the world. However admirably adapted our bridge may be to the utilitarian ends of trade, and however beneficial it may prove itself to the growth and prosperity of St. Louis, it still subserves another purpose of almost paramount importance—that of public hygiene. Nearly every large city in the United States is surrounded with resorts of easy access, where invalids, and especially sick children, may be removed from the crowded, reeking streets in the hot summer months, to the cool, pure air of the country. There are few, or no such places in the environs of this city, near enough, and cheap enough for all classes. Every physician recognizes the absolute necessity of fresh air and healthful exercise in the too fatal summer maladies of children, and as we have just observed, these two hygienic elements are not obtainable here, at least for the poor. The completion of the bridge across the Father of Waters has fully supplied, beyond all expectation, this urgently needed resort. We have now within the reach of the poorest, a magnificent promenade of over a mile in extent, which in the hottest nights of the midsummer is fanned by the cool, invigorating, life-giving breezes from the mighty river. It is not necessary to allude to this further, for all persons, professional and laity alike, can recognize in the means now at our disposal, an inestimable boon to the sick children of a crowded metropolis. But we cannot forbear doing homage to the genius of the engineer, who, while he has spanned the Mississippi and linked a continent, has at the same time furnished the means of ameliorating the condition of thousands of helpless sufferers.

AMERICAN MEDICAL ASSOCIATION.

The session of the American Medical Congress at Detroit, on June the 4th, was from all accounts, eminently satisfactory to the well wishers of the organization. The proceedings were of a more dignified and scientific character, and freer from that bane of medical conventions—personal bickerings—than ever before. The establishment of the Judicial Council was a move in the right direction, which we owe to the foresight and sagacity of the distinguished Nestor of the Association, Dr. Davis.

We congratulate our friend Dr. W. S. Edgar, of the *St. Louis Medical and Surgical Journal*, on his election as President of the Convention of Medical Editors, and we compliment the Convention on the good taste displayed in their selection.

Correspondence.

DENVER, June 17th, 1874.

Editor Missouri Clinical Record.

DEAR SIR:—In consequence of several mis-quotations in medical journals from an article of mine published in the *St. Louis Medical and Surgical Journal*, entitled "Rest, its Therapeutic Value and mode of application in certain Diseases of the Chest," I wish to be more explicit as to my mode of applying the bandage, which has given invariable satisfaction in my hands.

A cheap, easily applicable and efficient bandage may be made as follows; Unroll a sheet of raw un-gummed cotton batting, sufficiently long to surround the patient's chest, and the full breadth of the bale. By piercing the same by the arms, it may be applied around the chest like a jacket. This done, take a piece of stout drilling a yard and a half long and about a foot wide for adults—children in proportion—and apply it snugly over the cotton, one and a half times around the chest and pin it as tight as the patient can stand, or the physician can draw it. If it is too loose to give immediate relief from pain, and to enable the patient to expectorate freely and without trouble, take up a fold and pin or sew it. Females sometimes complain of compression of the mammæ, which compression may be relieved by a transverse or crucial incision made in the cloth. To prevent it from slipping down attach a strip of cloth in the way of suspenders.

It is essential to success that the bandage fulfills completely the above indications, because there may be a return of all the former morbid symp-

toms, if it gets loser from the simple stretching of the cloth, as will be shown by the following case:

June 12th, I was called to a child nine months old. The messenger (the childs mother—a midwife,) informed me that the child was dying when she left. I found the patient laboring under all the symptoms of a double pneumonitis. The lungs were filled with mucous to about the mammary region. The bandage was applied immediately, and a sponge bath of tepid water given. A loose expectoration commenced at once, the temperature decreased, the pulse became countable, and the patients countenance began to clear up. After four hours the former symptoms returned and disappeared again on tightening the bandage. Next morning again relapse and reapplication of the apparatus, when the temperature and pulse were found to be normal; the patient laughed and played and progressed from that time without an untoward symptom.

The previous evening I gave an emetic to rid the stomach of the large quantity of swallowed pulmonary mucous.

There is no counter-indication for any additional treatment that may be found necessary. Although such treatment is useless when the disease is attended from the outset, as may be seen from the following case:

J. B., a boy, aged eight years, suffered for the last four hours with a pleuro-pneumonia. Applied the bandage, after which he fell asleep. Twelve hours afterwards I met him at breakfast, preparing to go to school.

To mention more cases would be but variations of the same theme.

E. C. GEHRUNG, M. D.

Miscellaneous Notes.

MEDICAL ASSOCIATION.—In pursuance of a call made at a previous meeting, the Central District Medical Association of Missouri met at the office of Dr. J. W. Brent. On motion Dr. Brent was called to the chair and Dr. F. M. Woodfin chosen Secretary.

The following names were enrolled: H. C. Gibson, P. L. Hurt, J. D. Myers, Wm. Hooper, Wm. Redmond, J. W. Brent, W. F. Hubbard, J. M. Dunlap, J. B. Thomas, F. M. Woodfin, H. W. Latham, J. D. Calhoun, J. W. Norman, J. Harwood, Wade Howard.

On motion the Society then went into permanent organization, and a ballot being had Dr. J. W. Brent was elected President for the ensuing year, Dr. Howard, Vice-President; F. M. Woodfin, Recording Secretary and Treasurer, and J. D. Myers, corresponding Secretary

On motion of Dr. Myers, it was resolved that this Society be known as the Central District Medical Association of Missouri.

It was further resolved that we meet regularly every alternate month. The next meeting to be held in the city of Boonville on the second Tuesday (the 9th) of July.

On motion this Association adopted the constitution and by-laws of the St. Louis Medical Society. The following committee was then appointed to revise said constitution and by-laws, viz.: Drs. Norman, Dunlap, and Harwood.

Special committee to revise section thirteen of said by-laws: Drs. Gibson, Redmond and Myers.

The following standing committees were appointed:

Executive—F. M. Woodfin, Waid Howard and J. D. Myers.

Elections—H. C. Gibson, J. M. Dunlap, Wm. Hooper, Wm. Redmond.

Committee on Publication—J. W. Norman, W. F. Hubbard, J. B. Thomas, J. G. Calhoun.

Committee on Ethics—Waid Howard, J. G. Calhoun, P. L. Hurt, H. W. Latham.

On motion of Dr. T. L. Hurt was appointed a special committee to correspond with the Saline County Medical Society, to extend to them an invitation to join us in our District Association. The President was appointed a similar committee to correspend with the Pettis County Society for the same purpose.

Drs. Woodfin, Hooper and Myers were appointed to read essays at the next meeting.

On motion the Society adjourned.

J. W. BRENT, Pres't

F. M. WOODFIN, Sec'y.

HOME NEWS.

DR. EDWARD BORCK'S new residence on Ninth and Saulsbury streets, was the scene of an extremely pleasant social gathering last Wednesday evening. We noticed among the guest Drs. Edgar, Gregory, Robinson, Bauer, Enders, and a host of other friends of the genial host.

ON Wednesday, June 24th, Prof. H. Tuholske of the Missouri Medical College, was married to Miss Sophie Epstein of this city. We wish our amiable friend and his charming lady much happiness.

DR. GEORGE MENDENHALL of Cincinnati, died in that city on Friday, June 5th, in the sixty-first year of his age. Dr. Mendenhall was the author of the well-known students Vade Mecum; was formerly president of the American Medical Association, and was a Fellow of the London Obstetrical Society. He also filled the position of Professor of Obstetrice in the Miami Medical College, which he retained until within a comparatively recent period.

ANOTHER DEATH FROM CHLOROFORM.—The *Cincinnati Clinic* reports a death from Chloroform occuring at the City Hospiial, in the person of a middle-aged women of dissipated habits, who entered the house for a dislocated shoulder.

NEW ANTIDOTE FOR STRYCHNIA.—It is asserted by a correspondent of an Australian paper that salad oil promptly applied is an antidote to strychnia. The remedy has not been tried on man, but on dogs; a half pint of oil is said to be sufficient to prevent fatal results.—*The Druggist.*

RUB TWO drops of the oil of cinnamon with an ounce of glycerine, and add an ounce of castor oil. Children will take it and ask for more.—*Canada Med. Record.*

Original Communications.

LIFE.

AN ADDRESS TO THE ALUMNI ASSOCIATION OF THE ST. LOUIS MEDICAL COLLEGE. DELIVERED MARCH 12th, 1874, BY CHAS. L. CARTER, M. D., HOLDEN, MO.

I desire to speak to you this evening concerning the conditions and phenomena of matter which we call Life, than which no subject, I conceive, can be more important, more sublime, or more transcendent. Every new revelation from science renders less marked the line between organic and inorganic matter. A crystal will regain its lost apex as certainly as a new tail will develope on a lizard.

The universe of matter is marshalled by definite correlated forces.

The chemist calls these forces attraction and repulsion; the astronomer ealls them centripetal and centrifugal forces; in magnetism they indicate north and south; in electricity they are called vitreous and resinous; in galvanism they are called positive and negative; and the biologist finds the same forces correlated in male and female.

Both organic and inorganic bodies are composed of the same material in different allotropic states. In one form it is called a wagon, in another it is a team, and still another form mounts as a driver.

> These "are but parts of one stupendous whole,
> Whose body nature is, and God the soul."

Mechanical action has a wider range than we had heretofore conceived. If two engines collide the phenomenon is mechanical, this all will concede. Now we have only to heighten our conceptions a little to perceive that of the same nature are the oscillations of the molecules of a pyramid, and the undulations of the molecules of air and ether. Any change in the spots on the Sun's disc causes the magnetic needle to vary. Atoms of a frying fish are conveyed mechanically from the kitchen to the parlor.

And more is true; all matter is insensibly active to forces either obvious or occult. A pebble dropped into Lake Superior will displace every drop of water in that body. If I move my hand upwards the impress is fixed upon the ceilng though occult, yet real. You look into the camera and your features are impressed upon a glass saturated with silver, but no impression is visible till the glass is wetted with a solution of sulphate of iron.

These views are thought to be sufficient to show the near relation between organic and inorganic matter: that some actions thought to be vital, or chemical, are mechanical: that mobility of atoms is a property of all matter, and that the more highly organized, the more mobile the molecules.

Alchemists continued nugatory efforts for four centuries to find an alkahest or universal solvent, and a panacea. Long too, did organic chemists labor to combine elements in such equivalents as to form orgauic bodies. Orange peel saturated with saliva, beef tea, and decoction of hay, each when exposed for a short time to the atmosphere was found to swarm with living forms, but for obvious reason these results were not conclusive.

But success is the reward of vigilance; as in the primitive world, and in nature at all times; so, in the laboratory of to-day, elements are so united, as to produce organic forms. Not directly by the union of simple elements, but by the union of binary and tertiary compounds through the agency of sulphur, or phosphorus.

The combinations of the various isomeric forms of protein, form bodies as much above protein as the latter is above inorganic matter, having molecules larger in size, and being heterogenons in character. The molecules being multitudinous and multiform are centers of development, or physiological units, and the various morphological differentiations seen in the diffesent species, genera, orders and classes as we ascend the organic scale. Such is obviously the genesis of life.

What now is life? It is difficult to define ii explicitly. Herbert Spencer has given as good a definition as I have seen, in these words: "The continuous adjustment of internal relations to external relations." Every organism whether of the vegetal or the animal kingdom is continually acted upon by two forces, its organic forces within, and its external relations without; therefore, it is true to say the the "continuous adjustment" of these relations is life.

The roots of a plant take in from the earth saline matter, an essential pabulum, the leaves take in carbonic acid, and give out oxygen, the sap circulates and nourishes its tissues. In the animal, as in man, respiration, circulation, nutrition and secretion, thought too, and atl the organic functions go on simultaneously. These are the internal relations. The external relations embrace climate, soil, food, and all the surrounding conditions, whether promotive of, or detrimental to the organic forces or internal relations.

The external relations make up the environment of an organism, and their adaption to the interna. relations is the correspondence. To attain the highest degree, and the greatesi duration of life, these must be in harmony.

All organic bodies, I believe, develope from a nucleated cell. To this, congeries ot cells are symmetrically aggregated, but these are transitional stages rather than modes of development; we have too, the axial in which the cells arrange themselves into lines, and the multi-axial to which development in most of the higher animals conforms,

but the beginning of development in every living form is the same.

In man, for instance, the primal cell cannot be distinguished from that of any other species; but as development advances, the germ becomes first unlike the germ of the lowest order of plants; and as this human germ advances, or developes, it finally reaches a stage at which it can be distinguished as an animal germ, then as an articulata, further along as a vertebrata; but it is still not known which one of the vertebrated animals it will develope into, whether it will become a snake a horse or a human being; finally it is discovered to be mammal, and eventually it becomes unlike the germs of all the vegetal and animal forms below it, presents its peculiar form and nationality and after birth its personal identity.

In embryontc development it has been observed that as the little conical bud shoots out from the plant seed, and is developed into leaves, so in the fœtus in utero; a small bud shoots out, at first shapeless, but it expands and forms an arm with a fleshy mass at the extremity, which becomes segregated from the distal extremity and forms fingers. Meantime the complete organism is developed.

The organic functions are the main forces by which an organism is kept in harmony, and by which it resists or co-ordinates its environment, or the forces acting upon it from without. Function implies the statical and the dynamical distribution of forces. The former acts in the cohesion of parts, and in the mechanical resistance the body opposes to its environment; the latter is manifested in the functions of circulation, secretion, nutrition, mobility and respiration.

I recognize more than purely physical influences in the genesis and development of organic bodies, but it is well to consider how far the processes of life are subservient to physical agencies.

Heat, light and electricity are but different modes of motion. Heat is the reaction of incident forces. When the forces which persist in the molecules of a living body are acted upon by other forces, the result is molecular vibration and thermal reaction. Indeed, this is true of both organic and inorganic bodies.

Light is produced by a similar reaction of forces, but differentiates heat in the degree of oxidation, and in the activity of molecular vibrations. That oxidation is necessary to the production of light, is evinced by the inter-mitting ligh of the lightening bug, which is luminous only when it breathes or takes in oxygen.

Electrical phenomena attend the redistribution of matter, and it is more than probable that electricity is evolved by the redistribution of motion derived from external forces.

That which we call nerve-force is an electrical phenomenon, I believe is certain. The Torpedo and the Gymnotus have organs endowed with the special functions of generating electricity. And in other animals, and in plants, and in inorganic bodies, electricity is contiuously being generated by the redistribution of force and motion.

You now have my conceptions of Life — of its genesis — of its phenomena, and of its multiform gradations. Some of you may yet believe as I once did, in a special creation. I know that idea is the most firmly implanted, of all the traditions that we have been taught. It vanishes not, till scientific truths, are to us more potent than aboriginal vagaries. It has not a single fact to sustain it; besides, it demands the abrogation of Nature's immutable laws.

The general conformity of each species, genus, class, and order, to a special form and resemblance, looks like design. Thus, in vertebrate animals the jaws open up and down; in the annulosa the jaws open horrizontally. Each vertebrate has just seven vertebræ. Insects and crustacea have each just twenty segments. In every animal supplied with a heart, that muscle contracts steadily so as to propel the blood in one direction continuosly.

But these propositions are not universaliy true. Observe: the spider does not develop into just twenty segmenis, neither does the mite. Again, there is a little animal of the species, ascidians, whose heart beats so as to propel the blood in the one direction for a few strokes, then reverses the engine and sends the blood in the opposite direction for a few moments, and so it alternates continuously.

But the fact that offspring inherit the natural, and the acquired or accidental conformations of the parent, and the variations of development produced by natural selection, and environment, abundantly accounts for all that looks like constructive manipulation in the formation of individuals and species. These facts indicate — yea, necessitate what is found to be true — that the species of animals and plants are always gradually changing.

Change of matter is as persistent as force, as continuous as time — as endless as eternity. Gradually during the misty eons of the past, were evolved the stellar orbs, rolling worlds, and sentient man. Responsive to the mandates of Nature's primeval Triad — matter, force and motion, is each trembling molecule, — each flowing tide — each moving world.

Here the subject rests; but I desire to say a few words to the successful candidates who have just emerged from the green room. The diploma of which you are the wealthy owner is highly creditable to you, but it does not indicate that you, or the man who gave it to you, or any man under the sun knows it all. But it does indicate that you are competent to learn. And to be worthy of it, you must study as long as you live.

You are just beginning — just initiated — just hatched out. There is a species of bird in Africa, called the hornbill, which plasters up its young in the nest and feeds them through an aperture till they are able to go to the world and catch bugs for themselves.

Like all of ours, your history is similar; when you were neonata, or when you were infants in medical science, you were plastered up in this college and fed by older birds till you were thought able to catch bugs for yourselves. Again, a tiny girl released a hen that had been bound with a garter, and then tied her with a clothes line, explaining that she gave her more line that she could catch more bugs. Let your lines extend to the remotest bounds, and minutest atoms of the universe, that you may comprhend Nature's laws, and adore Nature's God.

Once more, finally, and to all. You are representatives of the most learned profession. Everything depends upon your intellectuality, your learning, and your honor. Let knowledge be you motto; let ethics be your shiboleth; let science be your guiding star.

You are here to revisit these familiar halls and majestic walls, which still raise their colossal battlements to heaven's ethereal canopy. Then associate together, as we associate force with motion, ethics with honor, energy with success. Then convocate, with minds radiant with the same spectres, impelled by the same high motives, feasting from the same inexhaustible fountain. Then fraternize as a common heritage, as a common brotherhood, as a common progeny of a cherishing mother.

REMINISCENCES OF THE PRACTICE OF MEDICINE IN MEXICO.

BY JOHN T. LUCK, M.D., ST. LOUIS, (FORMERLY OF THE U. S. NAVY.)

For four months our ships anchored off Acapulco, Mexico; the French troops had been holding the town and the malarial swamps that extended for many leagues to the southward--but the single mountain pass leading away and up to the pleasant and fertile table lands (*tierras templadas*), was so vigilantly and bravely guarded by the Mexicans, the followers of Maximillian could only stay in the town or swamps, and die of ennui and paludal fevers.

At last the Frenchmen took to their ships and sailed away with but a moiety of their original force, the other half with their toes turned up the Mimosæ and Cactaceæ, and, no doubt, yet sleep in the soil of *La Republica*.

After that evacuation day, a messenger came down from the mountains for me to visit the Governor-General, Alvarez, who was wounded in battle, and, suspicious of his own medical staff, desired American aid. Furnished with an escort, and mounted upon a superb mule belonging to the General, I responded to the call.

Starting at 6 P. M., we rode through the town, across the swamp and entered the mountain pass as the sun light faded, and the light of a full moon flooded all the region about us. Once in that pass, I realized how a few brave *Mexicanos* had held four thousand Frenchmen so long at bay.

The pass, at no place very wide, was often not more than ten feet from side to side, the mountains rising perpendicularly on either hand until their summits were lost in the moonlight. Trees, now partially removed, had been felled across the pass, stones had been rolled from the mountains to block the way. Seeking to get through this narrow pathway, the French had been repeatedly driven back or killed by the *guerrillos*, concealed in the dense foliage of the mountain sides.

Guided and followed by my escort, my trusty mule picked his sure-footed way through, around, and over these obstacles; widening and ascending, the pass at length became an open elevated plain far above the level of the Pacific that shimmered in the moonlight at our feet. Riding along this plain we came to an Indian village, where the inhabitants were all having a dance (Lamaquaka) to the monotonous music of a tom-tom drum. These semi-civilized people are kind and hospitable, and greeted the arrival of our little party with hearty welcomings. The soldiers of my escort seemed old friends of dusky slucvitas, and I found it easier to drink their "muscal" and eat their "olla podrida" than to rally my troops for a fresh start, but we did get started again, the villagers making the mountains and plain ring with the Mexican liberal song:

"Yo soy libre come el viento,"

we rode away — over the ever rising plain, until we came to the level table lands — the temperate region of Mexico. Just at sunrise we reached the hacienda of Alvarez. (Don Alvarez, father and son, have long been governors of the State of Guerrero. All the State has paid tribute to them until they have grown wealthy, for they do not account to the United States of Mexico — the general government has often tried to compel them to do so and failed.)

The house of the governor is a one story, very long one, built of adobe and covered with tiles. Surrounding it on every side are the similar smaller houses of his retainers (peonies), a people that live in a sort of semi slavery. They are the offspring of the Spanish, native Mexican and African races. Many of them, instead of being of homogenous color, are spotted — the general color of the body being a pale copper color, variagated by bluish-black spots that may be attributed to the African admixture.

Like all tropical people, they are early risers. We found them up and stirring at the early hour of our arrival. The General, however, was not among them, and did not make his appearance until about 11 A. M., when he received me in a formal and dignified manner, and invited me to breakfast with him. As an especial mark of esteem his wife and their charming daughters were present at the breakfast, which consisted of many courses, and lasted for two hours.

During all this day the General said nothing about why he had sent for me, for which I was not sorry, as it gave me a chance to see his sugar plantation, chocolate groves and pine apple gardens.

In the evening he submitted himself to me for an examination. I found he had been wounded by a musket ball that struck the inferior maxillary

larly in one who has been in the habit of drinking strong liquor, defficulty of swallowing gradually occurs, without any other known cause, and increases slowly until it produces the very painful symptoms described in the second chapter, we may very strongly *suspect* carcinoma, for we know that this is by far the most frequent cause of stricture of the œsophagus, and that all other forms are proportionately very rare.

The **presumption* that the disease is cancerous, increases in probability when there are lancinating pains at various places, particularly between the shoulder blades, when the patient emaciates rapidly, and the dirty yellow cachectic appearance of the face, common to cancer patients occurs. The diagnosis becomes absolutely certain when we find fragments of cancer in the mucus, sanious or bloody masses, that are vomited or brought up by the œsophageal sound.

Our case correponds almost exactly with case xlix, given by Bennet in his Lectures on Medicine, both as to its history, symptoms and "post-mortem" appearance, except that the œsophagus, in his case, communincated with the lung, through the continuity of the ulcer. In that case the diagnosis could not have been more than conjectural, based upon the history and symptoms.

In the present case you have seen that on *sectio-cadaveris* a few hours after death, we found the body much emaciated, reduced to a skeleton. In the throat the cervical portion of the œsophagus was normal. Within the thorax the heart and lungs were natural, except that the heart was reduced in size. In attempting to remove the lung, a portion of the anterior wall of the œsophagus, adhered to the tissues in contact with it, about three inches in length, commencing about one half inch above the diaphragm, and extending upwards, was unavoidably torn out. This constituted part of a soft, pultasceous, dirty, cheesy-looking mass, which was easily broken up between the fingers. This cancerous growth occupied the whole circumference of the tube, and was completely softened, except posteriorly where there was still some slight degree of firmness, and attachment of the œsophagus to the bodies of the vertebræ. A small sized catheter could be passed up and down from the ruptured portion into the stomach.

The stomach was quite empty, the coats generally atrophied, while there was considerable injection of the mucus coat in numerous patches. Often, color and general appearance of brick dust, or as if red pepper had been freely sprinkled here and there, on the inner surface of the organ.

At the time when the case first came under our charge, and when the symptoms seemed to be justly referable to the stomach, the patient took the subnitrate of bismuth and opium — various other remedies were tried, which are supposed to have some efficacy in relieving the vomiting and other distresses of chronic gastritis, such as the nitrate of silver, and creasote mixture, but of course without avail.

When the diagnosis became clear, we attempted the passage of a sound through the œsophagus, but fortunately for us the patient resisted our efforts. I say fortunately, for had we succeeded in passing our instrument down to the seat of the stricture, we might very readily, from the softened condition of the œsophageal walls, have passed through the coats of the tube into the surrounding tissues, and so, perhaps, have shortened his life, and possibly have incurred the odium of his death.

This case, then, becomes instructive, to you in the suggestion which offers for due consideration and care in the introduction of instruments into this tube, whenever the indication of stricture are present.

In due time resort was had to enematæ of stimulants and nutrients, such as wine and beef tea, which really had only the effect of prolonging the sufferings, as well as the life, of the patient, which terminated through the deprivation of food. The unfortunate man was literally starved to death, while we were impotent to do more than to relieve the intensity of his pain, and to afford him temporary relaxation, by the free administration of morhine injected beneath the skin.

* The italics are ours.

Extracts from Current Medical Literature.

SOME POINTS IN THE TREATMENT OF CHILDREN'S DISEASES.

Read before the Medical Society of London, March 16th, 1874.

BY J. MILNER FOTHERGILL, M. D. EDIN.,

Member of the Royal College of Physicians of London.

We are all familiar with the fact that the treatment of disease in children presents points of difficulty demanding special acquired knowledge for their solution can only be attained by careful observant experience,and by the attentive consideration of numerous cases. Such then being the case, it may not be altogether out of place to review here some points to which the speaker's experience has strongly attracted his attention, and on which, therefore, he has something to say that may fitly open and direct the discussion about to follow and to which this paper is but an introduction.

In the first place we must recognise the fact that the period of life now under discussion is that of growth, when nutrition is active, and tissue development is progressive. In consequence of this rapid growth, a child requires at frequent intervals supplies of easily digestible food, even in health. In disease, when the powers of the system are being tested this question of feeding assumes a momentous importance. The food must be such that the digestive powers of the child, enfeebled during the actual prevalence of acute affections, can assimilate it. If such assimilation be impracticable, the food, instead of going to the aid of the patient's powers, remains a burden, entailing so much effort for its removal. The administration of so much food, by coaxing or otherwise, is not the equivalent of so much actually digested. The question of how much will probably be actually assimilated must guide us in our line of dietetic treatment. When convalescence is once well established, the digestive powers of children are something stupendous.

The nervous system of children is very susceptible, especially to depressant remedies, and in acute and febrile affections the stage when such remedies are desirable is but a brief one, and quickly passes into a stage where mineral acids are the safest refrigerants and tonics. Frequently a small quantity of suitable food will lower the temperature, and beneficially affect the febrile condition—a fact which must often have struck close observers.

While we cannot recognise too distinctly the importance of nutrition and support in the treatment of sickness in children, we must not forget the fact that there exists in the minds of mothers and nurses very frequently, if not indeed generally, a strong feeling that nutritive food or drink will increase the inflammation, or add to the fever. Hundreds of children have perished, the victims of this ill-founded apprehension. They have died down from inanition in the too-careful avoidance of the risk of increasing the inflammation. Vain fear! fraught with mischief; it has still to be combated. There is no better test of a medical man's capacity to treat disease than his power to foresee that in one or two days the forces of the system will be severely tried by the acute affection, and so take his measure accordingly. Especially is this so in that terrible test of the capacity for endurance and of the amount of resistive power in a child — namely, bronchitis. The faculty of foreseeing that in one or two days the vital powers will be strained to the utmost leads to the adoption of timely measures to meet the hour of need. If the supporting measures are delayed till the time of trial is actually present they are too late to be of service. The impending adynamy must be foreseen and provided against in time, just as a sailor avoids a promontory on a lee shore, if the attempt has to be crowned with success. To convince the mother and nurse that failure of the powers is to be apprehended, and so to be provided against, to induce them to see it, and to convert them into willing allies to meet and avert the danger, is perhaps a petty diplomatic triumph enough; but its impression is not easily effaced, and the remembrance of it clings tenaciously if that looming adynamy becomes actually present, and the child rounds the point by a hair's breadth.

Beef-tea, freshly made, milk sheathed by an alkali, and even wine, are often called for in the treatment of acute disease, much oftener and earlier on in the case than many suppose. Especially may wine be advantageously administered when the powers are flagging, and the tendency to sinking is marked. Its skillful use at a critical poin often makes all the difference possible in the result.

On this point, however, it may be well to dwell a moment. The present habitual recourse to stimulants has penetrated into the treatment of sick children, and is fraught with evil. The anxious mother gives her ailing child port wine or stout, as indeed she would give it anything that she thought would do it good, and too frequently in liberal quantities. She thinks, indeed, that such agents do her child good; she evokes manifestations of force which she mistakes for evidences of vital energy, and is gratified accordingly. In childhood especially is the system engaged in storing up force, accumulating a fund of body force ever afterwards available for emergencies, and which we can draw upon by stimulants in the hour of need. By a system of alcoholic stimulation the force that ought to be stored up is called out, and a vast portion of the growing capital expended. When disease comes, the reserve fund which should and would have carried the child successfully through the trial, is found wanting. it has been spent in producing valueless manifestations of force, in useless and fictitious appearances of energy, which are not the evidences of superabundance of physiological capital, but are simply loans on the body-bank. Such over-stimulated children yield unresistingly before the approach of severe acute disease; their powers have been undermined, sapped by an erroneous, indeed, vicious system of feeding. The plan is simply pernicious in most cases, and it is a matter for grave question whether the digestive powers of children are ever assisted by the addition of stimulants to their food. On the other hand, in the course of acute disease it is often of the utmost importance to weather a danger-point, and for this end we may advantageously borrow some of the reserve force of the system by a stimulant. Especially can this be done in children who are properly fed and reared. whose powers are of normal tone, and unexhausted by previous stimnlation.

An excellent illustration of the good effects of well-directed stimulation is furnished by the following case. Some years ago I was attending a boy of eleven for a low form of enteritis. The remedial measures adopted just succeeded in bringing matters to a standstill; but it was mere arrest. A little wine was ordered on the morning visit, which made all the difference; in the evening matters had taken a favourable turn, and everything was as desirable as could be hoped for, except the tongue was not cleaning. The inclination to give a few grains of calomel was with much difficulty ultimately resisted, and the powder was counter-ordered. Next morning the tongue was nearly clean, there had been two fairly copious motions during the night, and the condition was one of well-marked improvement. Had those few grains of calomel been administered, the results would have been attributed to the calomel, and the effects of the wine would have been misinterpreted. As it was, the case was suggestive, and accordingly remembered. In pointing the lesson to be learnt, this case is perhaps more instructive than those of more critical states calling for stimulants, but where the effect is not so distinctly and unmistakably apparent.

In feeding sick children there are two points which call for more attention than is usually awarded to them. The first is the condition of acute indigestion in a convalescent child. Many and many a time does a rise of temperature, a return of fever, mark the administration of unsuitable food, or even of perfectly proper food in excess, when the mother and nurse regard it as the evidence of cold caught, and charge themselves with some neglect. An emetic and a purgative, the old empirical measures of our forefathers, soon give relief. I strongly recommend those who have much to do with disease in children to be on their guard as to the confounding af a rise of temperature due to indigestion, or rapidly accumulating bile, with the feverishness of a cold, the more so as the diagnosis materially affects the treatment adopted.

Another point is the not uncommon condition of increasing marasmus in a child co-existent with a ravenous appetite. It is common after acute disease, The child eats incessantly, and yet wastes, dwindling visibly away. This matter was brought prominently before my notice in an outbreak of measles which occurred at Leeds during the time of my connection with the public dispensary of that town. When the measles were gone and the convalescence was commenced, the children in many cases ate voraciously and throve in inverse proportion. It soon became obvious that there was much more food consumed than was digested and that in fact the more the child ate the worse

Sir Astley Cooper recommended placing the knee between the arm and forearm (bend of the elbow,) and by forcible flexions of the latter reduce the dislocation. This method suggested the one I have already detailed and practically tested in a few cases.

The incomplete or latereal dislocation, with or without fracture of the olecranon, can also be reduced in the same manner. The advantages of of the above method are, that we have a ready means at command to make extension, and counter-extension, also a fulcrum and leverage power; all of these aids can be brought into harmonious action at the same moment, to overcome the muscular resistance which opposes the reduction of the luxation. From its simplicity and easy execution we can reduce a dislocation of the ulna and radius backwards in two or three minutes without the assistance of a second person, or of anæsthetics or pulleys. Although the reduction of this form of luxation is not generally attended with much difficulty, yet we do occasionally meet with cases which give considerable trouble.

I have met with six cases of complete dislocation of the forearm simply backwards; two of these were in school-boys, aged twelve and fourteen years respectively, and four in adults. Five were reduced by the method I have already described, and one in the manner recommended by Sir. A. Cooper.

If the injured individual should be too weak, or unable to stand erect, he should be seated sideways on a chair, and made to grasp its back firmly with the sound arm, while the surgeon takes his position at the side of the injured limb parallel to the patient.—*Med. Record.*

GENERAL PRACTITIONERS AND CONSULTING PHYSICIANS: OFFICES AND COACHES: FEES: MEDICAL BARONETS.

LONDON, June 17, '74.

To the Editor of the Clinic:

The general practitioner who is a licentiate and not an M. D., has a very different position in England from the doctor and consultant. He has a shop or surgery, dispenses his own medicines, attends to all cases, including midwifery, that come to him, and has very humble notions in regard to the pecuniary value of his services. His charges for medicine include his professional opinion, and his prices range from one to several shillings. The general practitioner in England corresponds to the country doctor in the United States, except that the latter has obtained the title of M.D., from some chartered medical college, or has assumed it in virtue of his individual sovereignty. The general practitioner treats ordinary diseases, but in cases of difficulty or danger, especially in important families, the consulting physician or surgeon is summoned. The spheres of the two classes, are widely separated, and the licentiate not being a member or fellow of one of the Royal Colleges, occupies an inferior position socially as well as professionally. It is just as impossible for the consulting physician or surgeon to take cases out of his immediate line of practice, or to dispense medicines, as it is for the general practitioner to set up as consultant without the legal qualification conferred by the colleges. Those who have read Middlemarch will recall the struggles of Lydgate who being a general practitioner, sought to prescribe and to recover his fees without furnishing medicines. So rigidly drawn are all social distinctions, that this attempt to combine the functions of the several branches of the medical profession, failed ignominiously. That which George Elliot has so admirably depicted in her novel, is perfectly true of the medical profession in England to-day.

A large part of the medical practice in England is done by the general practitioners, because their services can be procured at a lower rate, and their time is more available. I am told that in the Queen's household a general practitioner is employed for all the slighter ailments, and the services of her ordinary physician or surgeon, required only in cases of importance. Her Majesty having a keen perception of the main chance, is unwilling to pay guinea fees when shillings will suffice.

The more teasing professional work being done by the general practitioner, the consulting physicien has much more leisure and can lead a more genteel life. In the preceding letter I indicated briefly the hours and mode of work of this class. The readers of *The Clinic* may be interested in further details regarding the figure cut in the world by a London Doctor.

The dining room—the first room entered from the hall on the ground floor of a London house—is universally, I believe, used as a reception room for patients, and a smaller room at the end of the hall, as a consultation apartment. All London physicians have a butler or footman in livery, in attendance. Some of these servants occupy a very confidential position and make engagements for the Doctor. Dr. Gull's man is said to be especially expert in impressing visitors with the great importance of his master, and he makes the engagements for the visits days and weeks in advance. The anxious patient may appeal for an immediate interview, for an earlier appointment, but the inexorable attendant says it is impossible, that Sir William cannot be disturbed, that the time named is the earliest period at which he can be seen. Sir William Gull's man is said to be well trained, and it is even hinted that anxious patients are sent laboriously away when Sir William Gull is only taking his morning cigar or whiling away a tedious hour with the last new novel; but this is obviously, a slander originating with envious and less successful doctors. But it is certainly true that the difficulty of seeing Sir William Gull only enhances the desire of his patients to procure his services—an illustration of the social law that men prize most that which is the most difficult of attainment.

A successful London doctor observes the same state on his rounds through the city as in his office. Driving a wretched horse in a perishing buggy, or trundling along in an omnibus, or aiding his strength with an occasional pull in a hansom or cab, does not suffice for the needs of a London consultant. He rides in a brougham or clarence carriage, his coachman in livery, his footman on the box. The great man is rolled up to the door of the mansion, he sits majestic until the mercury on the box has dismounted and opened the door of the carriage, and then without haste or any impairment of dignified demeanor he steps on the pavement. All this, which may appear unmeaning parade, is perfectly consistent with English notions of the fitness of things, and is in entire harmony with the social usages of London. The younger men ride in a brougham drawn by one

horse and driven by a liveried coachman, but unattended by the footman. It was recently made a serious charge in a London Medical Journal, that a Demonstrator of Anatomy in one of the London Medical Schools was seen riding in his brougham with kid gloves on at noon. Such eccentric conduct as this was supposed to be the reason why so many candidates for the recent fellowship examination at the Royal College of Surgeons, had been plucked or failed to pass.

The state which must be observed by the London Doctor, cannot be maintained without certain income. Hence it is that for many years his life is one of continual toil and anxiety. The number of people who can afford to pay a guinea fee is not very large, relatively, even in so rich a city as London, and Englishmen are educated to a keen sense of values. The ordinary consulting office fee is a guinea — equal to six dollars, nearly — and for a visit twice that sum. Sir Wm. Gull, Sir Wm Jenner, and probably a few others, have advanced their fees recently, and now charge two guineas for the office consultation. As the money is paid at the time and as there are no losses and commissions for collection, it is obvious that a very satisfactory income may be made from a few patients each day. Of course the surgeons get, very often, much larger fees than those named above, which are the rates for ordinary consultation visits. Important operations justify, as is the rule everywhere, very much larger fees — the amount being dependent on the circumstances of the patient and the time and skill involved. As Sir Benjamin Brodie once remarked, the large professional income is not made from large fees which are in the nature of things exceptionable, but from the continual dropping into the purse of small ones. I have been informed by those who are in a position to know, that few London professional incomes reach ten thousand pounds (about fifty thousand dollars). The incomes of the consultants range from one hundred to five thousand pounds. The latter figure is rarely exceeded, even in London. There is no doubt, the great physicians and surgeons of New York make much larger incomes. An illustration of this fact was afforded me very recently, in the experience of a gentleman who had consulted Dr. Austin Flint, Sr., in New York, and Sir James Paget, in London. The fee of the former was twenty-five dollars, and of the latter two guineas, or about twelve dollars. There is little doubt that Dr. Flint also sees a much larger number of patients than Sir James Paget.

I alluded in my last letter that the creation of Sir Wm. Gull a Baronet was well received by the aristocracy. But the medical baronets are, as a rule looked on with coldness and not unfrequently with derision by the privileged classes. They smell of the shop. They are also compelled to stick to the shop to build up the fortune necessary to maintain the dignity of their descendents in their hereditary rank. One may see on their doors their title duly engraved on a brass plate; for example: Sir Wm. Jenner, Bart. This is very important stock in trade, and not only brings grist to the mill, but furnishes a reason for massive fees. It requires several generations for the Baronets of medical origin to be purified of the odors emanating from the shop.

I was curious to know the history of some of the sons of medical baronets created during this century. The present Sir Astley Cooper, son of the great surgeon, makes no figure in the world and indeed cannot, for his only occupation consists in maintaining the family dignity on the gains of his father. Very different has been the career of the present Sir Benjamin Brodie, son of the surgeon with whose name and surgical achievements we are all so familiar. After a very distinguished career at the University the present Sir Benjamin Brodie was appointed Professor of Chemistry at Oxford, in which science he has made important researches. Owing to impaired health he has lately retired from his professional duties and is now living quite unostentatiously at his country seat.

The mortifications to which new made baronet are exposed, and the social restraints which so interfere with the intellectual activity of the privileged classes, have rendered many eminent medical men quite indifferent or indeed opposed to entering the titled ranks when the opportunity has been offered them. *The Clinic, July 18th*, 1874. R. B.

CAN A PERSON BE ANÆSTHETIZED DURING SLEEP?

This is a very important medico-legal question, and it is ably discussed, though not conclusively settled, by Professor Dolbeau, in the January number of the *Annales d'Hygiène*. The case was that of a young woman who claimed she had been chloroformed during sleep, and then violated. Professor Dolbeau performed several experiments, and found that sleeping animals were readily aroused by the presence of even small quantities of chloroform in their immediate vicinity. The cases of three patients are also given, who while sleeping were readily aroused by applying small quantities of chloroform at no great distance from the nostrils. In a second series of experiments made on seven patients, ten drops of chloroform were poured on a napkin folded in four, which was gradually brought to the vicinity of the air-passages, so that all air inspired had traversed it. In all these cases the patients were suddenly aroused from their sleep, some immediately, and one only after the eleventh inspiration.

A third group of cases, consisting of twenty-nine patients, was next experimented upon, furnishing different results. These are given in some detail, but it will suffice to say that it was found that in ten out of the number, that is, more than a third, complete anæsthesia could be induced without awakening them. Dexterity in the mode of procedure seemed to have something to do with the proportion thus obtained, for this increased progressively with the number of cases experimented upon.

"New researches will still be required in order to establish the influenee which may be excited on the results by the age of the subjects, their sex, their prior condition of health, personal habitss etc. The purity of the chloroform employed is also a matter of importance. While thus appealing to future researches, your reporter, making certain reserves, still feels that he is authorized in drawing a somewhat positive conclusion. Scientifically it is difficult, but often possible, to render persons insensible by means of chloroform, who are in a state of natural sleep. Certain precautions, the employment of a very pure article, and great practice, are conditions that favor the success of the attempt. It is probable that certain subjects are absolutely refractory, that is, it is impossible to anæsthetize them, in spite of every precaution that can be taken. Others, on the contrary, and es-

pecially young children, easily undergo anæsthesia without being aroused from their sleep by the irritation which the anæsthetic produces in the air-passages. Under the criminal aspect, it is certain that chloroform administered to sleeping persons may facilitate the perpetration of certain crimes. It is, however, probable that the conditions favorable for anæsthesia will be rarely combined on the occasion of criminal attempt. But before the tribunals the expert should declare that it is possible, if not easy, to render a sleeping person sufficiently insensible by chloroform to allow of his becoming the victim of a criminal attempt."

Editorial.

THE MISSOURI CLINICAL RECORD.

When we commenced the publication of the RECORD five months ago, it was with many misgivings as to its ultimate success, being fully aware of the many difficulties to be contended with, and the almost insuperable obstacles to be overcome before any undertaking of this character could be placed upon a permanent basis.

We take this opportunity to announce to our numerous friends that by earnest effort and well-directed labor we have now attained a point at which we can look back with satisfaction to the past, and prepare to redeem our promises for the future. Without vanity we think we can safely say, that the RECORD has seemed to give universal satisfaction to our readers, and we know from certain marked improvements now in contemplation, that this very agreeable verdict will not soon be retracted. In the initial number of the RECORD we pledged ourselves to the effect, that whenever our ability would permit, we intended to materially improve our journal. We are now in a position to make the promise good. With the September issue the RECORD will appear in a new dress, and increased in size by the addition of at least twelve or more double column pages. As we have occasionally heard remarks upon the small size of our journal, it will not be amiss to say to the uninformed that even in our present shape—16 pages double column—we have been giving as much reading matter as any of the fifty-two page book-form journals. This is due to the longer and wider arrangement of our page in two columns, and to the smaller sized type. Therefore it will be seen that by the addition of a dozen or more similar pages, we will be enabled to give to our subscribers a journal presenting as much reading matter as any monthly in the United States. Finally, we have added to our editorial staff Dr. Charles L. Carter of Holden, Mo. Dr. Carter has been long and favorably known as a medical writer of distinction, as he has been a regular contributor to the medical and scientific literature of this country for nearly twenty years. Any further comments on our part in connection with Dr. Carter would be superfluous; it merely remains to be added that in the future he will take an active part in the editorial management of this journal.

Dr. Montrose A. Pallen has recently been appointed Lecturer on the Surgical Diseases of Women, in the Medical Department of the University of New York. We, in common with numerous friends and a large *clientele*, regret exceedingly his determination of removing from his native city; but we trust that the more extended field of his future labors, will afford him the opportunity of adding fresh laurels to his well-earned fame as a Gynæcologist. It may not be out of place in this connection to state that Dr. Pallen was the first physician in this city who had the moral court age—not only to advocate, but to practice, what may be called modern gynæcology, notwithstanding the determined and violent opposition of our whole medical faculty; and it is no doubt a matter of great satisfaction to see measures and methods in gynæcology now adopted, for the advocacy of which a few years ago he received the vituperation and abuse of his professional brethren.

We have received the Catalogue and announcement of the Missouri Medical College for the session of 1874-75. Without doubt it is one of the handsomest announcements—typographically considered—that we have ever seen. It is beautifully printed, on good paper, and embellished with two handsome wood-cuts—one of the Missouri Medical College and Hospital, and the other of the new City Hospital. We note, moreover, several changes in the faculty since last year.

The most significant fact, however, in connection with this announcement yet remains to be mentioned, we refer to the *permanent reduction of the fee to* $50.00.

The *Record* has heretofore taken a very decided stand upon this question, and in a former issue we very thoroughly reviewed the whole question in its bearing upon medical education in St. Louis, and we now reiterate our former assertion when we state that in our opinion the Missouri Medical College has done a very wise thing. We have not now the space to recapitulate the arguments that we adduced in favoring the adoption of such a policy by our St. Louis schools, but we feel confident that the result of such a step to the school adopting it, will prove in every way satisfactory.

DR. L. J. DEAL, of Philadelphia, has been appointed to succeed DR. CHAS. O. CURTMAN in the Chair of Chemistry in the Missouri Medical College. Dr. Deal has been a practical teacher of chemistry for a number of years in several eastern

schools, and we have no doubt, from what we have heard on all sides concerning the gentleman, that he will be a worthy successor of his distinguished predecessor.

WE have received a copy of the *American Medical Weekly*, Edited by Dr. E. S. Gaillard. This seems to be in some sort the result of an overflow of the superabundance of good things offered in the *Richmond* and *Louisville Medical Journal.* The contents of the *Weekly* are fresh and interesting, and from the very cheap rate at which it is offered, $2 a year, it will no doubt attain a large circulation.

Book Notices and Reviews.

Lectures on "Bright's Disease" with especial referance to Pathology, Diagnosis, and Treatment, by George Johnson M. D., F. R. S. Fellow of the Royal College of Physicians. Prof. of Medicine in Kings College, etc. etc.,—Duo. page 152 New York. G. P. Putnam's Sons, 1874.

This little volume consists of a series of six lectures reprinted from the "British Medical Journal" and furnishes an opportunity for those who do not subscribe for the Journal, to make themselves acquainted with the views of one of the most distinguished British teachers, upon this important and interesting form of disease. Dr. Johnson has for many years paid special attention to the subject of Renal disease, and no single man has done more than he to elucidate the matter. His opinions, therefore command our attention and respect, notwithstanding they may be at variance with those of other prominent pathologists of the day

There is, perhaps, no one class of diseases pertaining to one special organ in which more advance has been made than in that under consideration. And yet there remains much to settle both in regard to the definition and Pathology of "Bright's disease." For while by some it is maintained that there are several distinct diseases of the Kidney, comprised under the generic term "Bright's disease," or albuminuria; on the other hand, there are those who still regard the various morbid changes and appearances of the kidneys found in "albuminuria" as but degrees and stages of the one affection.

The student, then, who reads, for example, Niemeyers Treatise on "Bright's Disease," closes his btok satisfied that he has understood and mastered the whole subject—: he is doomed however, to further study and investigation of the mattnr; to uncertainty and disappointment. He soon becomes confused and bewildered in the subtleties and refinement of pathological differentiations, and finally remains undetermined as to whose views he had better adopt, or, even as to whether he has any opinion at all of his own.

In his first lecture, Dr. Johnson deals briefly with the anatomy and physiology of the kidney. Here he alludes to the discoveries of Virchow in regard to the distribution of the blood vessels of the organ, and especially the existence of the arteria vasa recta.

Dr. Johnson is, however, not altogether in accord with some other histologists as to the minute anatomy of the kidney. The most important point in dispute being as to the existence or not of normal connective tissue surrounding and binding together the tubules and other structures of the organ. For while Rindfleisch, for example, in his valuable treatise on "pathological histology" speaking of "alterations in the connective tissue," says, "a very careful inspection of the individual tubes is requisite to enable us to see minute shreds of a substance resembling a coagulum, and often finely granular, attached to them here and there; this it is which must be regarded as connective substance.

On the other hand, sections taken from various parts of the organ, which have been soaked for a little while in a solution of carmine, and then treated with acetic acid, yield far more satisfactory results. They serve to convince us most completely, that both in the medullary and cortical substance, the uriniferous tubes on the one hand, and the blood vessels on the other, are held together by an organic cement which is none other than the connective substance of which we are in search. A basis substance, which clears up on the addition of acetic acid, contain in spindle-shaped and stellate interstices of corresponding size, the familiar corpuscles of connective tissues, etc. etc." Dr. Johnson on the other side with Lionel Beale, denies the existence of this connective tissue as a normal constituent element of the organ. Thus he says: "The so-called matrix has no existence apart from the basement-membrane (of the uriniferous tubes) and capillaries. The convolutions of the tubes and the net work of the capillaries mutually support each other. No connuctive or supporting tissue is required.

The tissues on either surface of the basement membrane adhere to it without the intervention of another tissue to which the term connective tissue can be given."

This difference of opinion as to the existence or non-existence of an important histological constituent necessarily leads to want of accord as to the nature of certain morbid changes in the organ.

Thus Niemeyer speaks of "Interstitial Nephritis" in which "the disease lies mainly in the scanty connective tissue which binds the tubules together."

Says Rindfleisch, "A formative irritation of the connective tissue of the kidneys, either primary or secondary, diffuse or circumscribed, is more or less decidedly associated with all inflammatory conditions of the organ."

While George Johnson declares it as his opinion that the changes which occur in the basement-membrane of the tubes and malpighian capsules, and are often very obvious and striking have frequently been misinterpreted. He says, "For example, thickening and corrugation of the membranous walls of the tubes have been mistaken by Virchow and his followers for a formation of connective tissue *between* the tubes, and thus all the phenomena of the disease have been misunderstood."

In the new nomenclature of the Royal College of Physicians, the term is thus explained: Bright's disease, *Synonym:* Albuminuria. *Definition:* A generic term including several forms of acute and chronic disease of the kidney, usually associated with albumen in the urine, and frequently with dropsy and with various secondary diseases resulting from deterioration of the blood."

Dr. Johnson justly remarks that "accepting this definition of Brights disease, we shall find that it is nearly synonymous with albuminuria—nearly, but not quite. For, on the one hand, in some quite exceptional cases, both acute and chronic, albuminuria is sometimes absent, and on the other hand, albuminuria may be unassociated with Bright's disease. For example, the mixture of blood or pus with the urine of course renders it albuminous; but hæmaturia and purulent urine, although often associated with Bright's disease, may result from other and quite distinct pathological conditions either general or local. And again, in the advance stages of valvular disease of the heart, and in some cases of extreme emphysema of the lungs with bronchitis, albuminuria may be caused by passive congestion of the kidney, resulting from an impeded circulation through the heart and lungs, and a consequent engorgement of the whole systemic venous system; yet albuminuria, thus originating from purely mechanical causes, would not be correctly designated a form of Bright's diseases.

Under the head of acute Bright's disease he designates four varieties, the differentiation based upon microscopic examination of the urine, viz: 1st with epithelial desquamation (desquamative nephritis); 2d, without desquamation, and with or without small hyonaline casts; 3d, with exudation —cell casts, with or without epithelial desquamation; 4th, without albuminuria.

He notices that "acute albuminuria is sometimes unassociated with dropsy from its commencement to its termination." The terms "acute albuminuria" and "acute renal dropsy" are therefore not strictly synonymous, and we may remark in correspondence with this opinion that we have had, in our experience, two cases of acute albuminuria as a sequel of scarlet fever, and terminating fatally, in neither of which was there at any time external manifestations of dropsy. In both the cause of the death was pericarditis with large effusion into the pericardial sack.

Under the second class, chronic Bright's disease, Dr. Johnson treats instructively of the red granular kidney or coutracted granular kidney; of the large white kidney; of the simple fat kidney, and of the lardaceous or waxy kidney.

In reference to the local and general symptoms of the variety, "contracted granular kidney," our own experience accords with the observation made that "dropsy is not a prominent system in this form of disease," and that in a large proportion of cases, it is absent throughout the whole progress of the malady. And further, that as a rule, the urine is not highly albuminous; so that from a want of prominence in two manifestations commonly regarded as essential in a diagnostic point of view, not a few cases of this form of Bright's disease may escape recognition, especially if the investigation does not include a microscopic examination of the urine. In two cases occuring lately in our private practice, there was at no time general dropsy, and the urine in either was on the most careful and repeated examination found to be very slightly albuminous, but the microscope showed abundant casts in the urinary deposits. In both of them occured œdema of the lungs; in one the termination was fatal; in the other, relief from the most destressing dyspnœa was rapidly obtained by freepurgation.

His explanation in regard to the manner in which hypertrophy of the heart, which occurs so frequently in this form of kidney affection, is brought about, isat least ingenious if not completely satisfactory. He says "in consequence of degeneration of the kidney, the blood is morbidly changed. It contains urinary excreta, and it is deficient in some of its own normal constituents. It is, therefore, more or less unsuited to nourish the tissues, and probably more or less noxious to them. The minute arteries throughout the body (of course under the influence of the vaso-motor nerves) resist the passage of this abnormal blood, and in consequence the left ventricle beats with increased force to carry on the circulation. The result of this antagonism of forces is, that the muscular walls of the arteries, and those of the left ventricile of the heart, become simultaneously hypertrophied.

In regard to the minute anatomy and pathology of the lardaceous (amyloid) kidney, Dr. Johnson rejects both of Virchow's theories, advanced to explain first the process, and second the nature of the so-called infiltration.

It is true as he remarks, that "most writers on renal pathology accept Virchow's theoretical interpretation of this disease, and assume that the first pathological change consists in thickening and degeneration of the walls of the minute arteries, and malpighian capillaries. In consequence of this degeneration, we are told, albuminous and fibrinous materials transude through the walls of the vessels, and infiltrate the tissues of the kidney; and this is supposed to explain the structural changes in the gland."

"I find this theory," he continues, "inconsistent with anatomical facts, and therefore I reject it entirely."

Dr. Johnson professes to have studied the condition of the reral blood vessels in the various forms of Bright's disease for a number of years. He claims to be able to distinguish muscular hypertrophy from lardaceous (amyloid) and fatty degeneration of the arteral walls. The result of his microscopic examination in a large number of diseased kidneys is that "while I (he) have not met with a single case in which thickening of the renal blood vessel in any form was unassociated with extensive changes in the secreting tissue of the kidney, I (he) have examined many kidneys in an advanced stage of lardaceous disease with only an inctpient degeneration of the blood vessels."

Virchow and his followers have many admirers in this country, whose faith in his teaching is so firm and implicit that they have come to regard his theories even as established facts. With these the opinion of Dr. Johnson will have but little weight, but to those of more liberal modes of thinking, they will furnish food for study and further investigation in this important and interesting branch of pathology. But we have occupied space enough in the notice of so small a volume, and in conclusion we may assure our readers that it is replete with valuable instruction both as to the pathology and treatment of the class of diseases of which it treats.

P. G. R.

Miscellaneous Notes.

IT is said that Mr. Erichsen, the distinguished English surgeon, intends visiting this country.

PROF. VIRCHOW has written a letter calling on physicians to subscribe in aid of a monument, to be erected to the memory of the great Eustachius.

PROF. ERASMUS WILSON advises the use of gurjo oil in the treatment of ekzma, hipus, and cancer.

FIVE to twenty drop doses of the tincture of gelseminum, every six hours, has been extolled in the treatment of odontalgia and facial neuralgia.

IT is claimed that Professor d' Outrepont, of Wurzberg, was the first to suggest, and use, perchloride of iron in uterine hemorrhage.

OVER £14,000 was collected on "Hospital Sunday" in London; in Boston, where the same system has been introduced, the collections amounted to $13,000.

F. N. CHRISTERN announces the *Psychological and Medico-Legal Journal*, a monthly publication to be edited by Drs. W. A. Hammond and John B. Cross.

DR. D. WARREN BRICKELL, and several other prominent medical men in New Orleans have formed a new Medical College, known as the Charity Hospital Medical College.

Dr. LEMUEL J. DEAL, late of Philadelphia, we understand has been elected Professor of Chemistry in the Missouri Medical College. From our present knowledge, we say they have done well.—*Medical and Surgical Reporter.*

THE first number of the *Archives of Dermatology*, a quarterly journal, devoted to diseased of the skin, will appear in October. It is to be edited by Dr. L. D. Bulkley, under the auspices of the New York Dermatological Society.

SIXTEEN general hospitals in London receive, in the aggregate, an annual income of £220,000; whilst the special hospital—thirty-eight in number, are in the receipt of a yearly revenue to the amount of £137,000, making, with the general hospital, a grand total of £357,000 a year.

INFLUENCE OF DIET UPON THE PROPORTION OF THE WHITE BLOOD GLOBULES.—Wilbouchevich concludes as the result of several observations upon anæmic subjects that "a purely vegetable diet has an evident effect upon the proportion of the white blood globules," increasing from the normal proportion of 1 to 600 red globules to 1 to 66 and 1 to 138.—*Le Progrès Médical, June 20th.*

ACTION OF BROMIDE OF CAMPHOR.—From many experiments upon cats and guinea pigs, Bourneville concludes that, even in small doses, the bromide of camphor depresses the temperature, and that this depression increases progressively as the dose is increased, to attain its maximum in those cases where the dose administered is sufficient to produce fatal results.—*Le Progrès Médical. June 20th.*

TO CHECK VOMITING FROM COUGH.—Consumptives and others suffering from paroxysms of cough frequently vomit their food in such paroxysms. Dr. Woiliez recommends swabbing the pharynx before eating with a concentrated solution of bromide of potash—

R. Pot. brom.....3 ij.
Aquæ destil.....3 iv.

—warning the patient not to cough for a few minutes after the application. The same treatment is recommended for the vomiting of pregnancy. It is said to be very successful.

IN the town of Brive, in France, a most profound excitement was created by the appearance of an epidemic of syphilis. Mr. Bardinet, who investigated the matter, believes that he is justified in stating that the number of persons who were contaminated, either directly or indirectly, exceed one hundred.

HOW TO DEPRIVE IODINE OF ITS STAIN—Add a few drops of phenic acid to the tincture, and it will not stain; moreover the tincture is more efficaceous, and its action more certain. M. Bogs recommends the following formula for use in injections:

Alcoholic tincture Iodine.. 3 grm.
Phenic acid.....6 drops.
Glycerine.....30 grm.
Destilled water.....150 grm.

—*Med. and Surg. Reporter.*

SOCIETE DE BIOLOGIE, Session of May 23d, 1874.—M. Labarde has ascertained by experiments upon dogs that when compression and anæmia are produced by the elastic method of Esmarch that complete anæsthesia is at first induced, which lasts 3 to 3½ minutes, after this period sensibility returns to the normal state to be replaced by decided hyperæsthesia after about 9 minutes. He therefore concludes that Esmarch's method will permit certain short operations to be performed without general anæsthesia.

COLLEGE CHANGES.—Dr. M. A. Pallen has been appointed Lecturer on Surgical Diseases of Women, in the University of New York. Prof. Peaslee has been elected to the chair of Gynæcology in Bellevue, vice Dr. Brickell resigned; Dr. Stephen Smith and Dr. W. A. Hammond, both recently of Bellevue, have gone over to the University of New York. Dr. T. B. Buchanan has resigned the professorship of anatomy in the Nashville School, and removed to St. Louis; Dr. Summers, of Alabama, has been appointed to fill the vacancy. Various transfers have been made in this school, and in the Medical College of Ohio.

H. DURET in Le Progres Medical of June 20th, comments as follows upon Dr. Bartholow's "Experimental Researches upon the Functions of the Human Brain" reported in the American Journal of the Medical Sciences for April, 1874:

"It has seemed very useful to us from the point of view of the physiology of the brain.

"Nevertheless, we cannot refrain from thinking this experimentation upon the living person too bold and even culpable. That a surgeon should plunge his bistoury into the brain with a therapeutic end in view, is easy of comprehension, but the introduction of needles an inch in depth into the cerebral pulp and the passing of an electrical current *the effects of which had not been previously studied* is a proceedure which cannot be to strongly condemned.

EXHIBITION OF MEDICINES BY TRACHEAL INJECTION.—At a meeting of the Societe de Biologie of May 16th 1874, M. Jousset (de Bellesme) proposed to inject the trachea with medicinal substances in cases where it is necessary to obtain an immediate effect and where other modes of administration are impracticable, eg. tetanus, hydrophobia, algid stage of cholera and pernicious fever. He said "The operative procedure is most easy and practicable. The trocar of the hypodermic syringe is introduced a finger breadth below the

cricoid cartilage and the medicinal solution is slowly injected, this may be of much larger volume than can be used sub-cutaneously."

M. Magnan asked why not use simply injections into the sub cutaneous cellular tissue where absorption is almost as rapid as from the pulmonary mucous membram?

M. C. Bernard remarked that M. Jousset (de Bellesme) proposed this proceedence only in cases of algidity when sub cutaneous absorption is much diminished. Besides, when a poison is given in a minute dose it is necessary, to obtain its action that the substance should penetrate the arteries without passing points of elimination, this condition is realized by injection into the respiratory passages, as absorption takes place by the pulmonary veins.—*ProgresMedical.*

SULPHATE OF ZINC IN THE TREATMENT OF POISONING BY RHUS TOXICODENDRON AND R. RADICANS—By Charles H. Humphreys, M. D., of Brandt, Miami Co., Ohio.

Several articles having of late appeared in this Journal relative to the treatment of poisoning by rhus toxicodendron and R. radicans, without mention being made of the use of the sulphte of zinc in the treatment of such cases, I deemit my duty to call attention to the efficacy of that salt as an application in such cases. The use of that drug was suggested to me some years since, and after trying it, I have since used no other remedy, as it afforded speedy and certain relief.

The usual form in which I use the sulphate is in solution of water, about one-half ounce to aq. one pint, and direct the patient to bathe the parts affected frequently.

In every case (some twelve or fourteen in all) in which I have used the remedy the vesicles and inflammation rapidly disappeared, desquamation of the skin commencing usually in less than forty-eight hours from the first application of the lotion, and frequently a decided change occurring in twenty-four hours. I now never use any other application—as the patients assert that it gives speedy relief to the itching and burning.

My last case was that of a young man, æt. 16, who has always been susceptible to the subtle influences of the rhus, "getting poisoned if he only *looked* at his enemy," as he expressed it. Both hands and wrists were inflamed, and enormously swollen. In urinating he conveyed the poison to his penis, affecting the whole organ, and the scrotum, the lower part of the abdomen, and part of the thighs. The prepuce was swollen to the size of a common orange and distended with fluid, giving it almost a transparent appearance; there was phimosis, completely hiding from view the glans; the scrotum was enormously swollen. I was sorely tempted to puncture the prepuce, but decided to try the zinc, which produced absorption of the fluid in thirty-six hours, aud in forty-eight hours the skin was rapidly desiccating, and in a few days all traces of the disease had disappeared.

Some weeks ago I was asked to visit a man about 40 years of age, poisoned with rhus. I found him delirious, and with considerable fever; pulse 110, tongue thickly coated, bowels constipated. Upon the face was an eruption of an erysipelatous nature, and from the amount of constitutional disturbance I was led to believe it a case of facial erysipelas, until informed by my patient's wife that a few days previous, while in the woods, he had come in contact with poison-oak, and upon returning home remarked that he would again be poisoned, that it shortly did make its appearance, first upon the nose, thence spreading over the cheeks and eyes. The inflamation had extended over the forehead and into the scalp, both eyes were quite closed, both ears, cheeks, and lips were very much tumefied and pitted on pressure, and the patients features were so disfigured that he was not at all recognizable.

I gave him a free purge, and zinc sulph. one ounce to a pint and a half of water to sponge his face with every hour during the day and a few times through the night. In two days I found my patient walking about the house, and "feeling quite well." The œdema about his eyes had nearly disappeared, and desquamation of the epidermis from his face was proceeding in the usual manner.

The foregoing cases, with others, could be related more fully did I think the detailed histories of the cases called for.—*Am. Jour. Med. Sciences*, July, 1874.

Some News.

WE call the attention of our friends to the new school for young ladies established in this city by the Sisters of the Good Shepherd, of he Episcopal Church in Missouri. This school should find commendation in the eyes of physicians, at least, because these noble and intelligent ladies have devoted themselves for years to the care of the sick, and until recently the St. Luke's Hospital, in this city, has been under their supervision. The instruction afforded in this institution will be most thorough in all the departments, and no pains will be spared to make the school equal in all respects to any in the country.

DRS. Luck and Mullen will continue their classes in Pharmacy for the ensuing month. This class was established for the purpose of giving Drug Clerks an opportunity to prepare themselves for the examinations before the Board of Examiners appointed by the State. We advise all who are interested in the subject to avail themselves of the very thorough and able instruction afforded by these gentlemen, as it will be greatly to their interest and advantage.

Books Received.

LIGATION OF ARTERIES, AN OPERATIVE MANUEL, BY DR. L. H. FARABEUF. TRANSLATED BY JOHN D. JACKSON, M. D., OF DANVILLE, KY., WITH ENGRAVINGS, PHILADELPHIA. J. B. LIPPENCOTT & CO., 1874.

Several unavoidable circumstances have combined to delay the present issue of the RECORD. In the future we promise to have the journal out promptly on the first of each month.

Original Lectures.

THE CLINICAL VARIETIES OF PARALYSIS.

BY J. K. BOUDUY, M. D., PROFESSOR OF PSYCHOLOGICAL MEDICINE AND DISEASES OF NERVOUS SYSTEM, MISSOURI MEDICAL COLLEGE.

We will commence this course of lectures, gentlemen, by a careful study of some of the principal clinical varieties of paralysis. This is a subject replete with interest, and of the utmost importance to the practical physician. The word paralysis means a loss of muscular contractility, and necessarily implies an impairment of the power of motion. Sensation may be more or less affected in these cases, sometimes morbidly increased, when we use the term hyperæsthesia; sometimes greatly or altogether diminished, which condition is known as anæsthesia, When, however, we use indefinitely the term paralysis, motion is always understood as being particularly affected, and is therefore the disturbed function to which we particularly allude. Paralysis may be general or only partial. It may affect many muscles, a group of muscles, or only one muscle. When confined to only one side of the body we call it hemiplegia; when affecting the lower half of the body, paraplegia is the term by which it is designated. Again, it may suddenly occur, as we will hereafter see, or, on the other hand, its invasion may be gradual, insidious, and almost imperceptible. Never lose sight of the fact that paralysis is always a *symptom*, never a *disease*. If you always recollect this fact you will invariably seek to make a correct diagnosis as to its cause, never contenting yourselves with the mere knowledge of its existence; thus you will apply the proper therapeutic measures to each case, and your prognosis, which is a matter of much importance, will not be founded on error. To illustrate this explanation by another disease, so as to impress it thoroughly upon your minds, we will consider what a physician does in cases of dropsy, which, like paralysis, is only a symptom, and never a disease, bearing the relation of effect to cause. Is his duty accomplished when satisfied of the existence of dropsy in his patient? Does he not carefully interrogate each organ to ascertain their condition? Does he not earnestly strive to determine whether his patient is laboring under cardiac, hepatic or renal disorder before making any attempts at medication; thus it is in reference to paralysis. Once aware of its cause, and a great portion of the problem of prognosis and treatment is solved.

The principal causes of paralysis may be divided as follows: 1st, *All lesions of nerve centers* are apt to be followed by paralysis. Spiculæ of bone, clots of blood, effusions, tumors, inflammations, softening, are all so many causes of paralysis. Any *functional* disturbance of the brain, spinal cord, or great nerve centers may likewise be followed by paralysis, as. for instance, emotional and diptheritic paralysis. *Any lesion in the continnity* of a nerve will as surely produce paralysis as will a break or interruption in the course of a telegraph wire prevent the transmission of the electric fluid. Any affection or disturbance of the nerves at their *periphery*, or extremities, may result in paralysis, and we have well-marked instances of peripheral paralysis. This variety of palsy is usually local in character. All physicians constantly meet with phenomena due to *reflex nerve action*, and prominent amongst them is reflex paralysis. The spinal cord being the great center of reflex action, communicates impressions it receives from one part of the body to distant parts. First it receives the impression, we will say, for instance, from the periphery through the medium of the sentient nerves. The impression is duly recognized in the ganglionic or deep-seated portions of the cord. A new nervous influence is generated and transmitted with the rapidity of lightning to distant parts through the motor nerves, occasioning involuntary muscular action. Hence, a diseased or morbidly irritated part may, through the medium of nervous communication or reflex action, influence distant parts of the system. You will therefore perceive that difficult dentition, worms, ingesta and intestinal irritations, in both adults and children, may be the cause of fleeting forms of paralysis. A wound of a nerve on one side of the body has been known to occasion paralysis on the other.

Causes which produce *disturbances of circulation* are sometimes productive of paralysis. Obliteration of important arteries, or plugs of fibrin diminishing or filling up their calibre, may prove very serious causes of palsy.

Paralysis may be due to a *morbid state of the muscles themselves*, which is a condition totally distinct from the other forms, as then the nerve influence may be perfectly healthy and normal, and yet a decided palsy occur. *Contamination of the blood* with poisons produces many of the well-known clinical varieties of paralysis. Arsenic, lead, mercury, alcohol, the *materies worbi* of gout, rheumatism, diptheria, etc., operate changes in the economy that interfere with nerve function. These are, therefore, the principal causes of paralysis, and we will now occupy your attention with a short description of the best known varieties, which you will most frequently meet with in practice.

Hemiplegia is paralysis confined to one half of the body, generally affecting all the muscles which are voluntary. The limbs are, as it were, dead, deprived of the powers of motion and sensibility. The cheek on the

same side as the paralyzed limbs hangs; the mouth is drawn toward the healthy side, in consequence of a paralysis of the muscles on one side, which no longer antagonize those on the healthy side—hence the healthy muscles draw it to their side; the tongue is ordinarily pushed out towards the palsied side, because the muscles which protrude the tongue on the healthy side alone act; those on the affected side remaining motionless, the muscular contractions on the opposite side force the tongue towards the side where there is an absence of all action, diminished resistance, or cessation of antagonism. Articulation is imperfect, and at times it is quite difficult to intelligibly interpret the expressions of the unfortunate patient. Brain lesion is the common cause of hemiplegia. We would therefore naturally expect to find more or less evidences of mental impairment or a disordered condition of the intellectual manifestations; whereas in spinal lesions producing paraplegia or hemiplegia from an involvement of the upper half of the cord, such symptoms are entirely absent.

Taking it for granted that we have ascertained the hemiplegia to be of cerebral origin, the next important thing that presents itself to our mind is to determine the character, and then, as far as possible, the seat of the lesion.

This latter point will not present as many difficulties as the other. It will be sufficient here to state that the lesion is always situated on the side opposite to the paralysis, provided the lesion (which is generally the case) is situated above the point of decussation of the fibres of the medulla oblongata. A lesion on a level with this decussation would necessarily involve both sets of fibers, and consequently produce a double-sided palsy. A lesion below the point of decussation would be followed by palsy on the same side as the lesion. Now, as the corpus striatum is believed by most physiologists to preside over the generation of motor impulses, should motion be particularly involved in the paralysis, we would readily conclude that this nerve center most suffered. On the other hand, as the thalamus opticus is credited with the production of the senstory phenomena, an impairment of sensation would immediatly suggest to our minds its disturbance. These suppositions are to a certain extent correct in theory, but so intimate is the connection of these two bodies that one is rarely involved without a corresponding damage iuflicted upon the other.

The *nature* of the lesion can be determined only after a careful consideration of all the facts of the case. RECAMIER, TROUSSEAU, TODD, and other authors, state that an absolute and complete paralysis coming on *suddenly*, and accompanied with profound coma, is almost pathognomonic of serous or sanguineous apoplectic extravasation. Paralysis, on the other hand, which, though complete and *sudden*, unaccompanied by coma or loss of consciousness, is almost certainly caused by white or atrophic softening of the brain. Paralysis occurring *gradually* and insideously, is generally the result of *chronic* brain disease, viz: abscess, tumors, exostosis, red softening, and other brain affections, which slowly develop themselves, and very gradually exercise increased pressure upon the great cerebral centers. The age of the patient must also guide us in our diagnosis, as after a person has passed fifty years of age, atrophic softening frequently manifests itself by complete and unexpected paralysis, without any evidence of the camatose stage.

Our task of unraveling the character of the lesion does not end here. We must explore every organ of the body minutely and carefully, in order to ascertain the cause of the paralyzing lesion. *The heart* must be most carefully auscultated, as any indications of cardiac disease would immediately awaken our suspicions and direct our attention to the circulating organs as the *fons origo* of the nervous trouble. These suspicions would almost become convictions, did the previous history of the case plainly, in connection with cardiac lesion, establish the existence of the rheumatic diathesis. Cardiac troubles, and especially hypertrophy, lead to apoplectic extravasation into the brain. Or it may happen that a fibrinous concretion is washed into the blood current from one of the heart's valves, or a small fibrinous clot may be hurried along and finally impacted in a cerebral artery, effectually plugging it up, interfering with the nutrition of that part of the brain thereby supplied, thus eventuating in atrophic softening.

Then, again, the *kidneys* may be at fault and in consequence of their disease, excretion is imperfectly performed, the blood becomes overcharged with excrementitious matters, nutrition is at length impaired, an atheromatous condition of the arteries is finally developed; all this in consequence of a poisoned blood, which in its turn produces chronic brain troubles, the last link in this long chain of pathological changes.

We still have other expedients in aiding us to determine the character of the lesion, amongst which are the well known electrical observations of the late Dr. TODD. This distinguished author divides the state of the muscles after paralysis into three distinct states: *Muscular contraction*, or rigidity, occurring *early* or immediately after the development of the paralytic symptoms. According to him, such a state of affairs is indicative of an "irritative" brain lesion, such as as apolectic extravasation, inflammation, or a puriform accumulation in the subarachnoid spaces. Should the muscular *rigidity* develop itself *late*, and be accompanied with muscular atro-

phy, Dr. TODD attributes the above-mentioned phenomenon to "an irritation from cicatrization" occurring in the cerebral tissues. Finally, should *relaxation* be the prominet muscular characteristic, we may then conclude that the lesion is owing to some "depressing" cause, such as white softening with or without rupture of the blood vessels. The response to the electrical stimulous will in the first instance be increased, in the latter greatly diminished.

By *Paraplegia* we mean a paralysis of the lower half of the body. This paralysis is double, that is it differs from hemiplegia in affecting both sides of the body, but it invariably affects the lower extremities. The cause of paraplegia is usually of spinal origin, the brain being unaffected. Hence, we rarely or never have any symptoms of disturbed or impaired intellection, the spinal cord being the medium by means of which the brain's mandates are conveyed, nor does it in any manner preside over or generate the intellectual phenomena. Functional disturbances of the cord, without any evident lesion, may likewise produce paraplegia. The invasion of this form of paralysis is generally slow, and at times difficult to appreciate in its incipiency. One side is frequently more affected than the other, and diminished sensibility is almost an invariable accompaniment of the diminished or totally extinct motor power.

To demonstrate the progress which has been made in the study of nervous affections, I will present for your consideration a form of spinal paralysis which fifty years ago would not have been diagnosed, and is certainly understood with extreme difficulty. In this hypothetical case I am indebted to the valuable contributions and lectures of Dr. BROWN-SEQUARD. We will suppose that a patient comes to us with a perfect and complete paralysis of motion on one side, which, for convenience, we will imagine is the right, and on the same side, besides a markedly increased temperature, a permanent and marked hyperæsthesia exists. On the opposite, or left side, is a total abolition of sensation with diminished temperature, but perfect motor capacity. This paralysis we will suppose is absolute and complete from the neck downwards. The hyperæsthesia or increased sensibility deserves a passing remark, as one of the most important recent advances in physiology consists in Dr. BROWN-SEQUARD'S demonstration of the fact "that nerve conductors of the various kinds of sensitive impressions and of the reflex phenomena, and also those for the transmission of nervous force to muscles, blood vessels, etc., are absolutely distinct one from the other as regards their functions. For instance, there are four distinct kinds of nerve fibres of the higher senses. *Touch*, or the faculty of sensation, causes the appreciation of the object brought in contact, and its qualities, properties, and characters. The next nerve fibre we have to consider as being a conductor of one of the four kinds of the higher senses is the one which conveys sensations of *tickling*, which is a sensibility quite distinct from the other. There is also a fibre capable, especially, of transmitting *painful* impressions, such as a pinch or prick. Lastly, a fibre, the appropriate function of which is that of conveying to the brain due appreciation of *temperature*, or cold and heat. Hence we have distinct varieties of sensation, each having appropriate conductors, *totally distinct*, and perfectly independent one from the other, as regards their function." Our patient is affected, therefore, with a complete paralysis of one-half of the body, from the head downwards. On the same side of the body on which paralysis of motion exists he has increased sensibility to touch, tickling, pain and temperature; and in addition to all this, as we have already stated, the temperature is increased. On the left side, of course, we will have an anæsthesia of these four kinds of sensibility. In the *face*, on the side of the injury, there is an increased heat, an increased sensibility, and a contraction of the pupil. Now, how shall we explain the lesion which produces these symptoms? The pathological condition which we would expect to find would be an injury of the entire lateral half in its length of the spinal cord. The paralysis of motion is on the right, or side of the injury, because the motor nerve fibres "emerge from each side of the spinal column in such a manner that the fibres which control the movements of limbs on the right side pass to the right side;" whereas, on the other hand, "the sensitive nerve fibres which serve to the first four kinds of sensibilities we spoke of, pass into the spinal column in such a manner as to go to the other side of that organ, so that the nerve fibres of sensibility in my right arm and right leg pass into the *left* side of the spinal column." Hence impaired sensibility exists on the opposite side of the body to that of the injury. It may be well here to remark that the sensitive nerves decussate through the entire length of the spinal cord, and that the motor nerves only decussate in the pyramidal columns of the medulla oblongata. Late physiological researches seem to establish the fact quite clearly that the posterior columns are more intimately associated with the co-ordination of muscular movement, while the anterior columns are connected with motor and sensory phenomena. Hence in some diseases, as in progressive locomotor ataxy, where muscular co-ordination is particularly affected, the posterior columns are found seriously disorganized. The increase of heat in the right side is readily explained by the involvement of the sympathetic on the same

side of the injury, as any lesion occasioning paralysis of this nerve necessarily affects the vaso-motor nerves which are derived from it, and we then must necessarily have the well-known congestions and increased temperature so ably demonstrated and first alluded to by MARSHALL HALL. when he experimented by dividing the cervical sympathetic. This hyperæmia has some analogy with inflammation. but is at the same time convincing proof, as VIRCHOW claims, that hyperæmias may and do exist without necessarily being followed by inflammatory changes, because suppuration, ulceration, gangrene, œdema, etc., never follow th division of the sympathetic although the resulting congestions sometimes last weeks and months.

In paralysis, the nervous influence is not always at fault, and we must sometimes strive to ascertain whether the muscles themselves are not the seat of the disease. A well marked form of motor deficiency is found in an affection known as *progressive muscular atrophy*,—progressive, because of the persistent and oftentimes rapid progress made when once the symptoms are well established; muscular from the fact that the pathological changes occur in the ultimate muscular fibres themselves; atrophy, because of the characteristic wasting of the muscles. The recent advances in microscopic investigations prove beyond any probability of mistake that fatty transformations manifest themselves in the muscle-cells, and occasion the morbid changes and consequences which inevitably follow upon such errors of nutrition. The pathognomonic symptom "is constantly increasing inability to perform certain muscular movements." Muscles thus affected dwindle, are prone to peculiar twitching movements, and present a peculiar soft and yielding sensation to pressure. The muscles of the hand, the flexors and supinators of the forearm, the biceps and deltoid, are more likely to be involved.

Hysterical Paralysis is a clinical variety of disease that is all important to be acquainted with, as errors in diagnosis in such instances would seriously injure the reputation of the practitioner. This form of palsy is not the result of any structural lesion, but is a simple impairment of the functional nervous power. Some of its principal peculiarities are its sudden and unexpected development in persons of a markediy hysterical diathesis, and its just as sudden disappearance under some strong moral emotion. Moral influences are among its most powerful causes, the recollection of which point will materially aid us in diagnosis. There are usually no evidences of grave nervous disturbances which would naturally make us dread important cerebral lesions. There is a *superficiality* in the symptoms which enable all but the unwary physician to avoid false deductions. An absence of all mental impairment, the fact that no tongue or face palsy exists, clearly point to the functional character of the disease. The rotundity of the limbs is generally preserved, and all the indications point to the hysterical origin of the disease. Paralysis of the limb, or part of a limb, as a joint or finger, vocal absence (or aphonia), are the most common varieties of the disease we meet with in practice, although at times a partial hemiplegia or paraplegia are developed. The existence of the globus and clavus hystericus. the voiding of large quantities of limpid urine, the hysterical expression of countenance, the period of puberty, are all so many corroborative proofs in the diagnosis of this affection. Then again, the peculiar movement of the leg if paralyzed is insisted upon by Dr. Todd as an important differential test. In hemiplegia from organic disease of the brain, the patient, in walking, "first throws the truuk to the opposite side and rests its entire weight on the sound limb; and then, by an action of circumduction, throws forward the paralyzed leg, making the foot describe the arc of a circle." On the other hand, in the hysterical variety, the limb is "*dragged*" "as if it were a piece of inanimate matter." "No act of circumduction nor effort of any kind to lift it from the ground" is used; "the foot sweeps the ground as the patient walks."

Hysterical paralysis is frequently met with, and requires much patience upon the part of the practitioner in its treatment; but the therapeutical indications in the different varieties of clinical paralysis of which we are treating to-day must form the subject for a future lecture. Hysterical aphonia is probably the most common form of the disease which we encounter. Dr. Todd considers it "the type" of this kind of paralysis. He adds that "in such cases you may satisfy yourselves that there is no morbid condition of the laryngeal mucous membrane, whether tubercular or otherwise, and if no seriously disturbed state of the system should arise, your prognosis may be favorable, assuring the patient that in due course of time her voice will return." The periods preceding the critical time of life, and that following puberty, are very favorable for the manifestations of hysteria.

Emotional hemiplegia may be mentioned, *en passant*, as a rare clinical variety, which you may, perhaps never meet with in a long experience. Powerful mental emotions, such as fright, anger and passion, will sometimes temporarily affect the power of utterance or of intelligible articulation. These same influences will, in persons predisposed, sometimes result in a temporary paralysis of speech. The power of language, however, in most instances returns in a few days, as soon as the patient makes a little progress in his efforts to articulate some simple monosyllabic words. In such cases there is of course no serious brain disturbance, shock being the important element in the production of the phenomena.

Lead Palsy is an affection it behooves you

to understand, as its common occurance will necessarily awaken in your minds more than ordinary interest. The disturbances or lesions it produces are not of an organic character, at least so far as an involvement of the great nerve centers is concerned. The muscles and nerves are probably first affected, and later in the complaint the great centers may become involved if the morbid process is not arrested. The *local* symptoms of paralysis always precede the graver manifestations of the late periods of the disease. Epileptic convulsions and even brain softening, which appear late in aggravated cases as decided evidences of centric disturbances and changes, are invariably preceded by milder symptoms, viz: the characteristic "wrist drop" or paralysis of supinator muscles. Painters, and those whose occupation necessitates the constant use of lead, are the most frequent victims of such attacks. The peculiar blue line which is to be found on the gums of those affected is an evidence of the presence of this metal in the tissues. Acetate of lead given for ordinary medicinal pursoses for a great length of time will produce the same occurrence. The strongest proof of such a contamination is deduced from the post mortem examination and chemical analysis, by which means lead is extracted from the affected tissues. The metal gets into the system from absorption by the skin or by means of the inhalation of its fine particles in the atmosphere which painters constantly breathe. The mortality of such cases seems to bear a direct relation to hab its of intemperance and long-continued exposure to the sources of infection. The pathological changes found are pale, softened condition of the brain; its convolutions are wasted, and the sulci between them are widened.

"*Peripheral Hemiplegia*" and "Creeping Palsy" seem to be much the same affections, or are so closely allied to each other that they may be described under the same head. The approach of the disease is stealthly and decidedly peculiar. Vague feelings of numbness are experienced on one limb or part of a limb, whilst at the same time the sensation of touch remains unimpaired for some time. "The disorder at this period appears to consist chiefly in the want of power to adjust the muscles for the *finer* movements, but not for the coarser actions; after a time, however, more or less inability to accomplish the latter also comes on." The patient cannot pick up small objects, button his clothes, nor perform certain muscular movements requiring perfect and nice adaptation. In writing, his control over his pen soon becomes lost; and the palsy known as Scrivener's palsy bears some analogy with the present subject. The lower extremity in time becomes affected in a similar manner, and the patient's gait is altered and stumbling. The mind long remains unimpaired. The malady being essentially chronic, this state of affairs may be prolonged for years. In some cases both sides of the body are affected at the outset of the disease, whilst in others one side alone attracts attention by the manifestation of these characteristics muscular phenomena. The disease is generally surely though slowly progressive, and things go from bad to worse; towards the end the mind gives way and becomes impaired, whilst epileptic seizures are then not unfrequent. The term peripheral is applied to the disease from the fact that the first symptomatic evidences of functional impairment are to be found in those parts at a great distance from the cerebro-spinal influence, and the primary indications are hardly those of centric origin.

"*Epileptic Hemiplegia.*" Paroxysms of an epileptic nature are sometimes followed by hemiplegia. Such an occurrence, though rare, and generally transient in character, nevertheless does at times take place, and the physician being aware of such contingencies, is therefore not at a loss to interpret correctly occasional consequences of the fit. It is stated that the side which is most agitated during the convulsive seizure most generally suffers with the palsy, though the latter sometimes is developed when both sides have been equally convulsed. The hemiplegia may last a few hours or a few days, and in persons thus affected is prone to again manifest itself after the next paroxysm.

Chorea, like epilepsy, sometimes gives rise to "*Choreic Hemiplegia.*" In this disease, however, we are better prepared for such a result, as in many cases "the choreic movements occur more on one side than on the other, and sometimes they are altogether confined to one side." Grave suspicion may arise in your mind as to the existence of positive brain lesion. But you will find the face and tongue unaffected, as in hysterical paralysis. Nor will any mental impairment throw additional doubt upon the diagnosis. The etiology of the affection might be explained by an atonic condition of the nervous system, resulting in complete neurasthenia, attributable to the prolonged disturbances.

"*Rheumatic Paralysis*" sometimes manifests itself in connection with the rheumatic diathesis. Certain groups of muscles are generally affected. The rapidity of the development of this form of palsy is one of its characteristic features. All muscular movements of the affected parts are very painful, which, taken in connection with the enjoyment of full intellectual vigor, will obviate all diagnostic difficulties.

"*Diptheritic Paralysis.*" Many patients who have seemingly entered upon a perfect convalescence after an attack of this dreadful disease, become palsied weeks afterwards. The palate and pharynx are usually first attacked, and this local palsy is oftentimes a

forerunner of a more complete and general paralysis, which may become very appalling to the friends of the unfortunate patient. The development of the paralysis is frequently very gradual, and the loss of muscular power very complete and lasting, as the improvement is very slow, although the prognosis is in most instances favorable. The loss of muscular contractility is evidently due to a depraved nutrition of the nervous centers, the result of blood contamination. No brain symptoms are met with during the existence of diptheritic paralysis, and hence it follows that functional and not organic causes are to be invoked in the explanation of its pathology.

"*Bell's Palsy*" is a term applied to a paralysis of the portia dura of the seventh pair of cranial nerves. Sir Charles Bell's name is connected with this affection in consequence of his brilliant investigations of the course and functions of the aforesaid nerve. The palsy is strictly local in character; and as a motor nerve is principally affected, the muscles of the face supplied by it become motionless. The play of these muscles of course determines, to a great extent, the ever-varying expressions of the human countenance, and the appearances, under such circumstances, are very characteristic: "The eyelids are open and fixed, the features rigidly composed on one side of the face (for the disease is a one-sided one) and reflecting every change of feeling on the other." Sensation remains normal. Wounds, mumps, otitis, exposure to cold, are ascribed as causes of the palsy. The prognosis is not unfavorable. Inability to close the eyelids or a paralysis of the orbicularis palpebrarum will be an important differential test when it is necessary to distinguish this facial palsy from that following upon serious brain lesion. The absence of anæsthesia, cephalalgia, mental impairment, and the strictly local character of the palsy, will likewise enable us to make a satisfactory diagnosis.

I had hoped to say a few words in reference to "Progressive Locomotor Ataxy," "Infantile Paralysis," and General Paralysis of the Insane; but, for want of time, will be compelled to make them the subject of our next lecture.

LECTURE ON THE PATHOLOGY OF EARLY SYPHILIS.

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GENTLEMEN—I propose to-day to enter into a consideration of the pathology of the early stage of Syphilis, and to endeavor to deduce therefrom certain principles, which, if carried into practice, will enable us to pursue a more rational and less empirical method in the treatment of this protean malady. I will not detain you on this occasion by any historical inquiries as to the mode of origin and broadcast dissemination of this terrible scourge; but I will proceed at once to lay before you certain views, which to many of you—being already imbued with preconceived notions from your teachers and your text-books—will, in all probability, appear both novel and heterodox. At one time I thought that I was alone in the pathological theories that I shall presently explain; but I afterwards discovered that I had been preceded by M. Gascoigne, of London, and that Prof. Otis, of New York, and myself, had published our original papers contemporaniously.

Mr. Gascoigne merely hints at the question; Prof. Otis has dealt with the subject most scientifically and exhaustively. The only merit that I claim for myself in the matter, is that I have gone further in pointing out the rational treatment of Syphilis as deduced from our conviction of its pathology:

Now, from attentive clinical observation, and as the result of certain pathological considerations, I am induced to offer views diametrically opposed to the currently accepted opinions upon the pathology of syphilis, and which I think have, at least, the merit of plausibility in their favor. "A chancre is never a mere local lesion, as is proved by its period of incubation, by the analogy of other morbid poisons, and by the fact, as shown by repeated experiments, that its destruction within a few days and even a few hours after its first appearance, fails to avert constitutional infection." This quotation from the work of Bumstead, represents very accurately the now universally received ideas upon the matter. In other words, it is held that the virus is absorbed by the blood immediately that it is implanted beneath the epidermis. In contradistinction to this I maintain, that the poisonous principle is taken up by the lymphatic vessels, carried to the ganglia nearest the point of lesion, and after there undergoing a period of localization for a variable length of time, subsequently passes into the general circulation; and, moreover, syphilis is never *ab initio*, but only secondarily, a blood affection. The fact that syphilis has a period of incubation, and that destruction of its initial lesion never averts infection, does not militate against the views adopted; for incubation and localization are used almost synonymously, and even from my stand-point, I would consider the destruction of the ulcer futile, as I am convinced that the ganglia are already the seat of the future mischief. An analogy is instituted between syphilis and the acute infectious diseases; variola, vaccinia, glanders, etc. This, to say the least, is unfortunate; for syphilis is a chronic blood disease,

and the comparison should have been drawn between like conditions, and even in regard to its infectious element it is very dissimilar in its inception and course to the morbid conditions mentioned. Certain acute animal poisons, when received into the blood, produce their morbific action at once, as is evidenced by the constitutional disturbance which ensues. Syphilitic virus, on the contrary, remains in a state of quiescence, for a variable time, until, the prodromes warrant is in assuming that the poisonous principle is but *then* entering the circulation.

From the earliest dawn of the healing art the blood has been a much abused fluid, and to it has been referred many morbid processes of the true nature of which we have been ignorant; but the more profound pathological investigations of the present day have thrown much light upon the subject, and would seem to prove that the blood is but rarely or never the primary factor in the causation of those maladies which by their natural history afford the most resemblance to syphilis. Virchow* has remarked that "just the very forms in which medical men are most apt to console themselves, especially for the shortcomings of the therapeutical results, with the reflection that they have to do with the deeply rooted and incurable chronic dyscrasia—just these forms depend, I imagine, least of all upon an original change in the blood; for these are precisely the cases in the majority of which extensive alterations are discovered in certain organs or in individual parts." Leuchæmia presents a striking example of well-marked deterioration of the blood, originating externally to that fluid in the lymphatic glands. We have the authority of the best pathologist of the day in support of the position that tubercle is a local production. To quote from an able paper† upon the subject, "we may regard tubercle simply as the product of a special diseased condition of a certain class of tissues, these undergoing overgrowth and degeneration, and *secondarily* affecting the blood by furnishing to the circulation materials improper and insufficient for the proper nourishment of various parts of the body;" and the author quoted advances a not unreasonable hypothesis, in stating that the affection has its origin in the lacteal *lymphatics*. When we come to observe some of the features presented by the cancer, we will meet with conditions peculiarly illustrative, and argnments especially applicable to the theory advocated. Virchow, in the work already quoted, after describing the anatomical arrangement of the lymphatic glands, goes on to say that their object is, not being interposed like filters of the lymphatic vessels, but that they take up into themselves certain ingredience from the fluid mass of the lymph, retain them, thereby changing the chemical constitution of the fluid, so that it leaves the gland all the more altered, because at the same time it must be assumed that the gland always yields up certain constituents to the lymph which did not exist in it before. "I will not here enter into minute details, since the history of every malignant tumor affords the best example in support of this position. When an axillary gland becomes cancerous after previous cancerous disease of the mamma, and when during a long period only the axillary gland remains diseased, without the group of glands next in succession, or any other organs, becoming affected with cancer, we can account for this upon no other supposition than that the gland collects the hurtful ingredients absorbed from the breast, and thereby for a time affords protection to the rest of of the body. . . . Equally instructive examples are afforded by the history of syphilis, in which a bubo may for a time become the depository of the poison, so that the rest of the economy is effected in a comparatively *trifling* degree."

We have now examined casually into some of the diseases which exhibit points of analogy to syphilis, and we will find it true of the whole class of chronic blood disorders that they are invariably local in their origin, that the deteriorating *materies morbi* is never absorbed directly into the blood, and that its contamination is *always of secondary* occurrence. Moreover, we will discover that the lymphatic system—to which too little pathological prominence has been given—is either an active element in the causation of disease, or the medium through which noxious materials enter into the system. Abundant examples could be adduced in support of these assertions, but I will now proceed to present the arguments that have induced me to believe that the lymphatics play this important *role* in syphilis.

First, from analogy, the results of which we have already noticed, and secondly, from the observation of some of the clinical features of the disease. If we examine a person with primary syphilis, we will find a symptom constant, never absent, in fact given as a point of diagnosis, namely, induration of the *lymphatic glands* nearest the point of initial lesion. Has this no significance beyond the the fact than that it is a kind of inexplicable accompaniment of a chancre which assists us in recognizing it as such? The virus of the chancre is undoubtedly absorbed by the lymphatic vessels and carried to the neighboring glands, where it passes slowly through and indurates the whole chain of ganglia, until it finally reaches, in an altered state, the general circulation. This is shown to be the case by the induration, and by the facts demonstrated by Bassereau, that in three or four cases he found hypertrophied lymphatic vessels leading from the chancres *directly* to their gangalia, and the veins and arteries intact.

*Translation Cellular Pathology.
†Lecture on Pulmonary Phthisis. By Prof. P. Gervais Rbinsoon.

It has been supposed in a very indeffinite way, that induration was due to the reaction of the virus which had been absorbed by the blood. It is much more rational to believe, that induration, whether of the base of the sore, of the lymphatic vessels, or of the ganglia, is due to the direct absorption and local action of an irritant poison, causing an exudation of plastic lymph around the chancre, and producing hypertrophic changes in the lymphatic vessels and glands. Moreover, this view coincides with one of the supposed physiological offices of the lymphatics, which is to carry away the debris of the destructive tissue metamorphosis, and of course along with it the contagious principle. The lymphatic glands may be likened to a chain of fortifications thrown around the body for its protection; for instances of disease could be multiplied whose noxious substances have been imprisoned in them, and thus averting the most serious consequences to the economy. The blood of syphilitic persons presents no exceptions to the rule that proliferation of white globules is in proportion to the irritation of lymphatic glands, and the marked anæmia of early secondary syphilis is no doubt due to the vitiation of the colorless corpuscles and consequent non-formation of the red globules. One believing in the unity of the veneral poisons, and accepting as true the now strongly substantiated doctrine of Clerc—that the soft sore is but the derivative of the hard, and is the result of the transmission of the virus through the body of a person already diseased—can have but little difficulty in believing that if the virus of certain chancroids —probably those nearest the chancre type— is capable of being absorbed by the lymphatics, and not by the blood, then the virus of the true chancre is likewise so absorbed.

Veneral sores can be divided into three classes : 1st. Ulcers followed by suppurating buboes. 2d. Ulcers exhibiting no involvement of lymphatic glands. 3d. Ulcers coincident with never absent induration of the lymphatic ganglia. As a rule, it may be said, that general symptoms never follow an open bubo. There are exceptions, but it will be found that in these cases the suppuration occurred either a short while before or after secondary manifestations had supervened, and I think, that when suppuration does happen early, it eliminates the contained virus, which, if allowed to remain in the gland, would become so altered as to be able to pass into the blood, and cause constitutional contamination. Veneral ulcers having the appearance of chancroids, which do not involve the lymphatic glands contiguous to them *in any way*, are never, as far as I am able to ascertain, followed by infection of the system. thus showing that the lymphatic system is one the of most important elements in the causation of general syphilis. The contagious principle of syphilis varies in intensity according, perhaps, to its original source, susceptibility, and from many other causes of which we are unaware, but any one who has observed closely must admit the fact, for how many sores are there diagnosed as chancroids which subsequently are found to be chancres, and vica versa? I can recall two instances, in which a chancre was diagnosed in one patient and a chancroid in the other. The chancre was complicated with an early suppurating bubo, and six months afterward the patient was still free from syphilitic taint. Indurated glands which had been overlooked were found existing with the chancroid, and the patient subsequently had secondary symptoms.

The vast majority of soft or derived sores exhibit no ganglionic reaction, and are strictly local in their action, thus showing that without lymphatic implication there can be no constitutional infection; the soft sore with virulent bubo may or may not poison the blood, owing to its proximity to its primary type, or to the date at which suppuration occurs; whilst the ulcer with indurated glands *invariably* engenders constitutional syphilis.

It was formerly supposed from the negative results obtained in auto-inoculation, that the blood was instantaneously contaminated, but we now know that matter from a *recent* or from an irritable *chancre* can be auto-inoculated, and that the auto-inoculated virus, inoculated upon a healthy person, will in the majority of instances produce chancroids; but true chancres may occasionally occur. The virus, by transmission, seems to loose its power of affecting the lymphatics, and its virulence seems to be modified by the character of the sore from which it is taken and by the nature of the tissue upon which it is implanted. The remedies that are considered "specifics" in the treatment of syphilis, mercury and iodide of potassium, are medicines known to exert peculiar influences upon the glandular system, and the secret of their success is no doubt due to their therapeutical action upon the probable source of blood infection. A most interesting fact in support of the theory of localization is, that a mother contracting syphilis after the completion of the seventh month of pregnancy, as a rule, never infects her offspring. Would it not be reasonable to suppose, from the intimate connection between mother and child in utero, that the fœtus would inevitably suffer at whatsoever period of gestation, if the syphilitic virus was *immediately* absorbed into the circulation? The only adequate explanation this phenomenon admits of, is in the supposition that the virus is localized, and that the child is born before the intectious material has become capable of entering the blood.

To recapitulate: I think we are warranted in accepting as true the primary local nature of syphilis by the laws of analogy, by the

teachings of pathology and by clinical observation, by the results of post-mortems, and, finally, by the fact that in certain conditions, the syphilitic virus cannot possibly exist in the blood. The experimentum crucis still remains to be made: inoculations of the blood at an early date, and immediate extirpation of indurated lymphatic glands; which latter, if successful as an experiment, would prove, as a therapeutical indication, of incalculable benefit to the human race.

Communications.

PLASTIC EXUDATIONS WITHIN THE PLEURA—DRY PLEURISY.

BY W. B. HAZARD, M. D.

Dr. J. Rosebrugh Leaming, in the Archives of Scientific and Practical Medicine, for March, 1873, advances some novel views regarding several of the physical signs developed by auscultation of the thorax. These views, if substantiated, bid fair to modify to a considerable extent our diagnosis, prognosis, and therapeutics of pulmonary affections. We purpose to give a fair exposition of Dr. Leaming's remarkable article, and indicate several facts and inferences in some degree confirmatory of a part, at least, of his theories, leaving to more extended future observation to determine the amount of truth contained therein, or to demonstrate the baselessness of his hypotheses if they should finally appear to be merely hypotheses.

First of all, it must be understood that pleurisy with effusion is not in question. It is dry pleurisy, circumscribed pleurisy, without effusion or plastic exudation within the pleura which is under consideration.

Dr. Leaming's views, reduced to propositions, are as follows:

1. It is well known to all all who make autopsies, that thickened pleuræ and pleuratic adhesions, the result of plastic exudation, are of the most frequent occurrence; and yet the text books and teachers of physical diagnosis, give us no signs for their easy and ready recognition.

2. The reason that intra-pleural sounds have so often been overlooked is, "because the common signs belonging to plastic exudation within the pleura have been misinterpreted."

3. The subcrepitant or submucus rales cannot be formed in the bronchioli, because "all that part of the lungs which is beyond the third and fourth divisions of the bronchi—is filled persistently by the residual air. There is no motion within the residual air of any force or velocity in any direction—no movement at all except the molecular, which is silent, and there is no need of any other."

4. "Therefore, there being no air movement, there can be no subcrepitant rales formed within the true respiratory system, for their mechanism in the bronchioli becomes a physical impossibility."

5. The mechanism of mucus rales places them at varying distances from the ear, a fact verified at every auscultation of a case of ordinary bronchitis, "whilst plastic rales (subcrepitant) formed within the pleura, are always near the ear, moving *with* the lung and parieties in contraction and expansion of the chest." "The true mechanism of subcrepitant rales is always intra-pleural, and depends upon the presence of exuded lymph. The mucus rales, even when present, are not heard in the presence of plastic rales, for the exudation cuts off *sound* from the lung as effectually as closing a door."

6. "The character of the rales denotes the age of the adhesion." "If the plastic matter be of recent formation, the signs will be of soft, tearing rales, like tearing moist flannel, two or three threads at a time. The rales may be exceedingly delicate, and require close attention and acute hearing to recognize them, and a corresponding condition of the exudation will appear at the antopsy. Again, the adhesions may be months or years old, and the rales will be correspondingly hard and dry, sometimes creaking like new leather, and the plastic matter will be found after death dense and strong, like bands of cartilage."

7. "When tubercular deposits take place near the surface, pleuritic exudation is always an accompaniment. Consequently these rales, although intra-pleural, have been considered, and in most cases the diagnosis would be correct, as evidence of softening and breaking down of tuberculous masses, or caseous degenerations." However, errors of diagnosis may be thus committed, "for the rales may appear, * * * for pleural inflammation may take place, even at the apex, and no tuberculosis be present."

These deposits of lymph, binding down and crippling the lung, are considered by

Dr. Leaming to be among the most potent of the causes of tuberculosis; especially if combined with impure air and nauseating and depressing medicines. As remedial agents he advises pure air, simple food, and in acute cases characterized by exceptional violence and excessive amount of exudation, "the powerfully sedative action of calomel may abort the disease so completely that not a vestige of it will remain—this, too, without any draught upon the life-power of the individual. Twenty, thirty, forty, or even sixty grains, placed on the tongue, may be necessary to produce this sedative action. The proper action of the calomel will simply be the disappearance of the grave signs and symptoms. There will be no purging, no ptyalism, and no exhaustion of vital power. This dose should be given so as not to be repeated—strike but once—repeated blows may do harm." In old cases, where the adhesions are firm and almost cartilaginous, the most that can be done is to prevent progressive contraction, and elongate the adhesions as much as possible by systematically expanding the chest. Much may thus be accomplished. By thus forcibly expanding the chest, a temporary emphysema may be produced, and this may effectually prevent the development of phthisis. The intra-pleural adhesions may, and often do, cause hæmoptysis, and in this way determine the onset of tuberculosis.

Remarks. Pleuritic adhesions are, without doubt, of extremely frequent occurrence, and when they are extensive and of great density, they must exert a most pernicious influence.

Pains, of evidently pleuritic character, are among the primary symptoms of phthisis in a large proportion of cases. Pains, also pleuritic in charaeter, are prominent in the early stage of pneumonia: "the stitch" complained of by patients, is undoubtedly pleuritic; every one admits it That all the pains accompanying phthisis are of pleuritic origin may well be doubted, many of them are of neuralgic origin.

That pleuritic, plastic exudation is often reabsorbed is also true; how else explain the absence of adhesion between the pleural surfaces after death, occurring long subsequent to undoubted attacks of pneumonia? The occurrence of pleuritic adhesions gives the key to the beneficial effects of the treatment of thoracic affections by the immovable apparatus as advocated by Dr. Gehrung in the June and July numbers of this journal. The chest bandage keeps the inflamed parts *at rest*, and permits reabsorption of the exuded material. If the absorption should not be complete, of course the forcible expansion of the chest should be practiced upon the subsidence of the acute symptoms.

Dr. Leaming considers calomel a powerful sedative and anti-plastic remedy. We know from experience with this remedy in cholera and cholera infantum, that it has a most powerful sedative effect upon the stomach; but as to its effect upon the heart's action is not so clear. That it is anti-plastic has been argued since the time of Paracelsus, but to-day the question seems no nearer settlement.

If calomel has the effect claimed for it by Dr. Leaming, it teems to us that there need be no more dispute about the proper agent to make use of in inflammations of serous membranes. Experience with opium in peritonitis and pericardites has seemed to nearly settle the question in relation to those serous sacs; but we are willing to give up our prejudices in any relation, when convinced they are merely prejudices. Dr. Leaming's article is suggestive, and merits something better than this imperfect review. It is to be hoped that some of our great lights on physical diagnosis will explain the mechanism of the subcrepitant rale and demonstrate, if possible, that the air in the bronchioli is not all residual air, devoid of motion or velocity sufficient to produce a sound, otherwise we may conclude from post-mortem appearances and physical measurements that it *is* residual air, and subject only to the molecular motion implied by the law of diffusion of gases. The movements of the ciliated epithelium are sufficient to accomplish the removal of mucus and other material, exuded into the air cells and most minute ramifications of the bronchi. Like the capillary circulation, which is silent and slow compared with the course of the blood through the arteries; the air, when it reaches the minute bronchioli moves with such slight force and velocity, if it can have any sensible motion, that the production of an audible sound is scarcely conceivable.

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THE UNITY OF SYPHILITIC VIRUS.

A PAPER READ AT A REGULAR MEETING OF THE HOLDEN MEDICAL SOCIETY. BY R. B. HULETT, M.D.

In compliance mith the request made at our last meeting, and in the discharge of the duty assigned me, I submit for your consideration, the unity of the syphilitic virus. The question is one of momentous import. Upon its solution depend a rational treatment. To free it of uncertainties, and quiet a distressed mind is an important consideration in the treatment of all diseases.

The history of syphilis is prolific. Theories one after another have arisen, flourished, and as quickly vanished, soon to be succeeded by others equally fanciful and absurd, until the whole subject has become well nigh stale, and much of it nonsensical. It is not my intention to trace its historic perturbations, nor follow in the wake of former investigations. It would lead me as surely as it led them into chaotic confusion. It is but just, however humble the student may be that he should stand forth in the defence of truth. But I have not the vanity to presume that I can add to it a new lustre; a single thought it may be, of which you are not familiar. Nor would I probe anew the wound already bleeding from repeated inoculation. Neither have I the faintest semblance of an idea of ever having a place among those who compose the brilliant galaxy of syphilographers. If, in the consideration of the subject I can profit by the discussion, all aimed at in this paper will be accomplished. Then to the sore itself,—the first and initial step on to the grand march of destruction, around which cluster all the diversities of opinion and degrees of suffering. Numerous instances present themselves discarding the old theory of constitutional safety from chancroid. The identity of the virus originating the two sores, is to my mind an established fact. Not that the two sores are in themselves alike in every particular. If the virus from the same nursery be transplanted a sufficient number of times, into various systems, we may get all the different varieties; a hunterian, a soft, a phagedenic, and a serpigmous ulcer. Habit, constitution, and the peculiarities of temperament determine its nature. The behavior of the sore itself in a great measure, determines whether it will be of the infecting or non-infecting variety. It is to no peculiar difference in the kind of syphilic virus that determines its infectiousness. The portal through which it gains access to the blood current, being once entered there, once beyond the sentinels which guard the entrance, and constitutional infection is certain.

To gain the circulation the virus must be brought in contact with the cellular tissue, with lymphatic glands, or their ganglia. No other tissue is capable of absorbing it. Not only must it come in contact with an absorbing surface, but the virus itself must be in a condition favorable to that end, is a fact well illustrated in injuries and surgical operations; were the matters effused capable of being absorbed they would be, and blood poisoning result. This sometimes happens in the one case as in the other, and this for the patient is a most serious accident.

It is generally taught that the period of incubation is from three to seven weeks. This is a fallacy; nevertheless, the danger decreases after the tenth day in proportion to the length of time. If a sulution of continuity occur during the act of coition the danger increases and the time of its appearance is lessened.

I have certainly seen more chancres from the 3d to the 5th day after exposure, than I have ever seen after that time. I can see no reason why a virus placed upon a denuded surface, provided it be in a condition favorable for absorption, would not be absorbed as certainly as a saturable salt placed upon a blistered one, or injected subcutaneously. It is hard to understand how a virus can lie upon the integument for seven weeks without producing its effects. In those who are content to live and stink from the exhaltation of their own bodies from accumulated filth, a diseased skin may blunt the sense of feeling and render one unconscious of a chancre for weeks after its appearance.

In the early history of syphilis, no disease entailed so much suffereng and misery. None baffled so much the skill and tact of the physician; but we have become, through hereditary transmission, in a manner syphilized. To-day scarcely a vestige of what it was, remains. Then every tissue in the body became involved, racked and tormented with pains, bones would exfoliate and die, nodes and exostoses sprout up. The soft parts would ulcerate and slough away. The sight dimmed or was irreparably lost. The voice was hoarse and husky. The pericranium ulcerated and sloughed. The hair lost its natural hue and softness, was hard and brittle, finally dropped from the scalp. Bones of the skull necrosed and found their way out, either by the hands of the surgeon, or by ulceration, until amid gloom and distress, he longs that death as a messenger of mercy would relieve his torments. *It was then syphilis.* To-day it is syphilloid.

Through a long series of successive inoculations, transmitted from one generation to another, the virus has become weaker; in fact it is often but the reinfeetion of a system already infected, and the day is coming when it will be known only as a diathesis. Many cases of so-called scrofula were brooded in a chancrous pustule. Who can fail to see its predilections for the same tissues; malnutrition and malassimilation, and the aplastic condition of the fluids characterize all its phases.

Slowly but surely it is laying the foundation, and fostering the seeds of disease, until the system weakened, succombs to diseases that would otherwise have been trivial.

The lower the plasticity of the fluids, the less is the resistence to disease, and the greater the danger from intercurrrent affections.

Circumstances being favorable it frequently, and often does, I think, eventuates in pulmonary tuberculusis.

There is a page in the history of syphilis in which an unerring finger points us to the excesses, and debaucheries of our fore-fathers, and refers us to a period in their lives blackened by dissipation.

It may have been centuries reaching us; nevertheless, the ambuscade has been formed, and the subtle virus is working within the vital current. While we attribute to them many good and noble qualities, of which we are justly proud, they have transmitted to us a most foul and loathsome disease, of which we as justly condemn.

I make no pretention to a scholarly essay. Some of you will take exceptions to the principles advocated, but the purpose of discussing these differences of opinion is the object of our meeting.

Clinical Report.

A CASE OF STAPHYLOMA.—OPERATION AND MAINTENANCE OF SIGHT.

BY EDW. BORCK, M. D., ST. LOUIS.

On the 15th day of August, 1865, when practicing in Maryland, a Miss Sue B—— of Hancock, the daughter of a wealthy and prominent citizen, was brought to me, with sore eyes; the left eye but slightly inflamed; the right was violently suffering from conjuntivitis. General health good, although of delicate constitution; age 11 years. Ordered a purgative, light diet, a cold poultice of pulv. ulmi to the eyes and a few drops of a collyrium containing 4 gr. of Zinci Sulph. to one ounce of water, to be dropped into the eye three times a day. My patient got along very nicely up to August 24, and I expected to see her well in a few days. But like most people, when sick over a week they become impatient, and if the patient does not, the friends and neighbors will; so here the young lady was getting along very well, was in good spirits, but still not well or quick enough for the relatives. Thompson's Eye-water was recommended as a specific by a minister, and of course, applied, may be also some other remedies were applied that I am not aware of; but no matter, on the morning of the 26th I was sent for in a great hurry; found the right eye much worse, great pain complained of, eyelid œdemateous, swollen, and nearly shut, fever very high, pulse 135, great restlessness. I could not account for the sudden change except in the change of remedies, and imprudence. Ordered gr. viii of hydr. chlor. mite, to be taken, followed by a dose of Mag. Sulph., in five hours; watery solution of opium to the eye, and a blister behind the ear.

Aug. 27. Fever subdued, not much pain, dressed blister with ungt. resini, Inflammation very high and suppuration purulent, mattering profusely; ordered eye to be washed with infusion of tea, and light poultice of pulv. ulmi; ordered syr. ferri. iod. internally, and nourishing diet.

Aug. 28. Observed a slight protrudence on the lower and right side of cornea, like a miniature hernia, the next day it was as large as a little pea, I proposed opening it to relieve irritation, objected to; informed parents that the tumor would grow larger in a few days and had to be operated upon.

Aug. 29 and 30. Tumor increasing in size; parents agreed, at my suggestion, to call in Prof. N. R. Smith, of Baltimore, in consultation; by the 4th of September tumor as large as a minnie ball, pronounced it Staphyloma produced by violent inflammation, which only can be relieved by operation consisting in removing the tumor with loss of eye-sight. Operation submitted to. On 5th September, my friend Prof. Nath. R. Smith, with my assistance removed the tumor in the usual way with scissors and tenaculum, patient under chloroform, hemorrhage pretty severe, lent and cold water applied. So confident was Professor Smith of the loss of sight, that he remarked to the parents, "the eye will atrophy and in six months' time you can substitute an artificial one." The patient rested well during the night; on the recommendation of the professor 1-2 grain of sulph. cupri to one ounce of water was used to saturate the lint applied to eye, but patient could not bear it, substituted the ice water, and continued the syr. ferri. iod., nourishing diet and fresh air; kept eye closed, continued this up to September 15, when I opened the eye, my little patient exclaimed with a smile, "Oh! Doctor! I can see." I was surprised, I closed the left eye and tried the right, surely she could see, for the crystaline lense had been preserved, I did not know of any case of recovery of sight after operation for Staphyloma, with the exception of a case mentioned in Lawrence, "On the Eye," related by Mr. Brodhurst, where Prof. Yaeger operated on a young person and omitted the rupture of crystaline capsule; a fair degree of sight was enjoyed for three months only, while then stooping down to pick up a n edle the lense flew out and sight was lost; such I expected would be the case here, and told the relations not to rejoice too soon and be cautious. I covered up the eye for another week, after

that leaving it perfectly exposed to light and air, recommended the utmost care to be taken in exercise, and not to use the eye too much. Perfect cicatrization seemed to have taken place; eye looked a little red for some time. Continued the ferri. iod. for a few weeks.

In September, 1867 hardly any one would observe that there had been once such violent mischief, but on close inspection we will find an opaque cicatriz, the iris looked contracted into a very small oblong quadrate; patient can see to read, write and knit, etc. very well without the assistance of the other eye.

She is still living to-day, a young lady of fine intellect, and good sight.

Hospital Reports.

CITY HOSPITAL—A CASE OF COLICA PICTONUM.

[Reported for the Record.]

For the last five years, patient has been engaged as a painter, and has always enjoyed comparative good health, although at different times he has suffered from colicky pains, which he attributed to indigestion, and by taking a cathartic was always relieved without much trouble. One week before entering the hospital he began to suffer from colic, which would yield to no treatment he had formerly used, although the most active cathartics were employed.

The pain continually increased until he entered the hospital, when his agony was terrible; and as he stated, his bowels were all twisting up in knots. The distinguishing mark of lead poisoning, the bluish gray line along the gums was well exhibited, the contracted abdomen, obstinate constipation, his bowels hot having been relieved for seven days, loss of appetite, emaciation, fetid breath, the tongue pale and furred agonizing exacerbations of pain along the course of the colon; all this category of symptoms were present. The usual treatment was first employed. Morphine to relieve pain and mild cathartics; from these he found no relief, and we had to resort to more potent measures. The morphine was continued to relieve the spasm of the bowel, and large enemata of soap suds, castor oil, and turpentine were made us of; besides, and in conjunction with the above, warm fomentations were constantly applied over the abdomen.

The injection was given without any pain to the patient, and retained for some twenty minutes, when it was discharged not stained or colored, showing that the gut was not occluded or occupied by fœcal matter. It now had been ten days since there had been any action of the bowels. Patient was taking no food—in fact, his stomach retained nothing, and his strength was failing rapidly. As a dernier resort, it was recommended by Prof. Robinson to try inflation, either by injecting of soda bicarb, and following it by tartaric acid, producing a volume of gas, and thus distending the gut; or by the old method of Hyppocrates (for the relief of intussusception) by pumping air into the intestines. This treatment was used for the following reasons: Should there be a twisting of the bowel it might be overcome, or the presence of the air in the bowel might excite its contraction, and thus cause it to expel its contents. A common small hand-bellows was used, and as soon as the air began to distend the bowel so that it pressed upon the bladder the patient wanted the operation stopped till he could make his water, for he said, "I can hold it no longer." As the air passed up along the intestines it gave him considerable pain, and as he stated, "brought on the cramps," and he drew his knees up as far as he could. The work, notwithstanding his complaining, was persevered in for some time, till he was thought to be well blowed up. A half an hour later he had a small passage from the bowel, and this was soon followed by a larger one of exceedingly offensive odor. The patient laid down exceedinly exhaused; but, having no pain, he almost immediately fell asleep and slept for ten hours; and awakening in the morning his first request was that he might be blowed up again. After this his bowels were easily moved by the mildest saline cathartics, and on the tenth the patient was discharged well.

Extracts---Abstracts.

A NEW METHOD OF TREATING MALIGNANT TUMORS BY ELECTROLYZING THE BASE.

BY GEORGE M. REARD, M.D.

During the past three years, I have treated malignant tumors of various kinds by a method of electrolysis, which I have termed working up the base, or electrolysis of the base.

Ordinary Method of Electrolysis.—In the ordinary method of electrolysis of tumors, the needles, insulated or non-insulated, are plunged directly into the body of the tumor. This method, which was introduced in the profession by Dr. Althaus, of London, is very satisfactory in the treatment of certain benign growths, as erectile and cystic tumors, and goitres, and in many cases its advantages over the knife are very great.

In erectile tumors, the ordinary method of electrolysis causes the formation of a clot, which is slowly and gradually absorbed, and

thus a cure is accomplished with little or no pain, and with little or no cicatrix.

In benign cystic tumors, the ordinary method of electrolysis causes decomposition of the fluid contents, stimulates absorption, causes more or less atrophy of the walls, and this way approximately or perfectly cures.

I have treated quite a number of cases of superficial and subcutaneous erectile tumors and of benign cystics by this method, and with results that have been most agreeable. In some cases, it is necessary to repeat the operation once or twice before the cure is perfected; but the pain in many cases is but slight, or can be readily controlled by local anæsthesia, and hence the operations are but little dreaded. Many of these benign tumors occur in localities where it is highly desirable to avoid a scar. Many of them also occur in patients who dread any ordinary operation with the knife, ligature, cautery, or hot needles.

In some of these cases, the results of the ordinary method of electrolysis are not only satisfactory, but really brilliant, and there is no question that the method will become a permanent part of the surgery of the future.

But for *malignant* tumors, this method of electrolysis does not suffice. It will relieve the pain, but relief of pain can be obtained by simple external galvanization without any needles. It will cause a certain reduction in size, but this reduction is almost always limited, rarely exceeding ten or twenty-five per cent. In some cases, not the slightest perceptible reduction is caused, even by the most persevering use of mild electrotysis. When powerful currents are used, there must, of course, result more or less destruction of tissue near the point where the needles are inserted, and by successive operations the entire growth may be broken down, or may slough away after the operations are discontinued, and it is possible to extend the operations far into the base and surrounding tissues. Some of my first cases were treated in this way; but it is to the last degree awkward, tedious, and involves a great waste of time and force. The time thus spent on the body of the tumor is wasted time.

Method of Operating,—The patient must first be fully etherized. The method of operating on a small tumor is to first insert the needle connected with the positive needle underneath the tumor and near the border. A similar needle connected with the negative pole is inserted also underneath the tumor, and, if possible, at some distance below the base of the growth, so that the point emerges on the opposite side. The current is now gradually let on, and the strength increased until the electrolysis becomes active, as will be indicated by the yellowish form that appears at the negative pole, which becomes gradually loosened. As the action increases, the negative pole may be slowly worked from side to side, with a slight cutting motion, so as to undermine the tumor. The positive meanwhile remains *in situ*; it becomes firmly adherent through oxidation, and need not be removed until the close of the operation.

After the tumor falls off, through the thorough undermining of its base, the base itself can be worked up in all directions with the needles, or with a harrow electrode that I have deviscd for this purpose. After the removal of the growth, it is well to change the position of the poles in working up the base, so that all parts of the surface may get the benefit of the action peculiar to both poles.

If the tumor is a large one, as an extensive epithelioma, or scirrhus, it is better to have it first removed by the knife. The base can then be worked up in the manner just described.

The cavity after the operation has a charred appearance. The time required in an operation of this kind ranges between ten minuts and a half or three quarters of an hour.

Little or no pain follows the operation, although the charred appearaace of the cavity that has been thoroughly electrolyzed suggests terrible agonies.

Instruments required.—For this method of working up the base, I have devised needles, or electrodes, that are qnite different from those employed in the ordinary method of electrolysis. The needles are long, spear-shaped, double-edged, and tolerably sharp, so that a slight cutting action may be combined with the purely electrolytic action. These needles are not insulated, except in that portion that is grasped by the hand in operating. In nearly all of these operations, I have used the zinc-carbon batteries of sixteen or thirty-two cells, and usually those of the Galvono-Faradic Manufacturing Company; and when a good deal of work is to be done in a short time, as in important electrolytic operations, no batteries are better than these. The various modifications of Daniell cells, which are so excellent in central galvanization, are not well adapted for powerful electrolysis.

Theoretical arguments in favor of the Method.—The theoretical considerations that bear on this subject are both interesting and important. The theory of the pathology of malignant tumors and the theory of the nature of electricity are both to be considered. My own view of the general pathology of malignant growths is, that the tendency to develop them under the necessary exciting causes—the *diathesis*—is constitutional; and, like all other constitutional tendencies, the tuberculosis or the gouty, for example, is subject to the laws of hereditary descent, with all the exceptions and variations. But diathesis is one thing, disease is another. In order that diathesis may develop into positive local disease, it is necessary that there should be some irri-

tating or exciting cause. The great exciting causes of malignant tumors appear to be injuries of some kind, and very likely cold and dampness. It is probable that not only the injuries that come from blows and falls, but the irritation of bad food in tne alimentary tract may excite the disease; and in this way we may perhaps explain the primary cancers of the stomach, liver, and intestines. The majority of cases of epithelioma of the lip, tongue, and face, and of scirrhus of the breast that I have seen trace their disease quite directly to some local injury, as blows or falls. In one patient, an epithelioma of the face developed in an old scar; in another patient, from a slight cut made by a razor. A man who worked in a carriage manufactory, and who kept tacks in his mouth much of the time, died of epithelioma of the tongue. A cystic of the breast in one case rapidly and directly followed a fall against a corner of a bedpost; in another case, the irritation of the corsets was the assigned cause. Dr. Stephen Smith tells me that he saw a case where scirrhus of the breast was pretty directly traceable to a blow that a lady received on her breast from her husband's elbow while turning in bed. Dr. S. T. Hubbard says that he has seen cases of scirrhus that appeared to be excited by abscesses of the breast. All such statements of patients must, of course, be received with much allowance for error and for careless observations, and yet it seems scarcely possible that so many intelligent patients—most of whom have no theory on the subject—should agree in tracing the origin of the different forms of external cancer to local irritation. Cancers of the rectum, uterus, and vagina could easily be explained on this theory, for these parts are subject to almost constant irritation; and in confirmation of this view, it has been shown by statistics that the very great majority of cases of cancer of the uterus begin in the neck, and not in the body of the organ. Cases of external cancer that are not traceable to any special injury may very likely be excited by exposure to wet or cold, and, in confirmation of this view, Professor E. Andrews, of Chicago, has shown by statistics gathered from the United States statistical returns for twenty years, that the proportion of deaths from cancer diminish pretty regularly as we go West or South—away from the seacoast and toward warm latitudes. Making all allowance for errors in diagnosis (and when a patient dies of external cancer, at lenst, there is little chance for blunder), and taking into consideration, also, the facts that the stronger people go West, and there lead less confined and artificial lives than the residents of the East, it seems necessary to accept the conclusion that cold and dampness may act as exciting causes of cancer, just as they unquestionably act as exciting causes of consumption.

The analogy of consumption is quite an advantage here. The tendency to consumption—the *tnberculous diathesis*—is constitutional, and subject to the laws of hereditary descent. The disease is local, and is, in some cases at least, excited by local irritstion. But the tuberculous diathesis is very different from tuberculous disease. Thousands of people with the tuberculous diathesis go through life without ever becoming tuberculous; they either escape the exciting causes, or successfully resist them. Just so we may suppose that thousands of people go through life with the cancerous diathesis without ever developing cancer. A dozen women, we will suppose, fall against a bedpost and injure their breasts; three of the twelve develop scirrhus in the injured breasts, and the other nine, perhaps, never think of the matter afterward. The three who develop scirrhus have the cancerous diathesis; the nine who do not develop scirrhus have not the cancerous diathesis. If these three had not been injured in that way, or in some other way, they would not have had cancer; the diathesis alone was powerless to develop the disease, just as coal is powerless to make a fire until it is lighted.

The most recent pathological investigations seem to point pretty clearly to the view that cancer is a local disease, and effects the adjacent parts and the general system by actual transfer of the cancer cells. The disease spreads like fire on a prairie, in various direcsions, siezing those tissues on which it can best feed, and sending out patchcs of morbid substance far in advance of the border of the tumor. Thus it happens that cancer cells are found not only in and around the cancer, but, at a distance from it, little islauds of cancer-cells appear, surrounded on all sides by healthy tissue.

We must, therefore, fight cancer as we fight a great fire, not by useless efforts to save the part already destroyed, but by drawing a cordon around it, between it and the healthy tissue, and cutting off its communication even at the expense of the healthy tissue.

If we accept these views, we must also accept the view that *cancer, whatever constitutional treatment we adopt, should be treated locally, and by some method of local treatment that acts not only on the body of the tumor, but also and especially on the surrounding tissue, and that the earlier such treatment is used, the better the prognosis.*

If we accept these views, we must also accept the view that the present method of removieg the body of the tumor with the knife, and then closing the wound so that it may heal by the first intention, is precisely the method that would be adopted if it were desired to have the tumor recur. The battle-ground on which is to be fought out the question whether the cancer is to recur is not in

the tumer itself, but in the surrounding tissue, and at a considerable distance from the main body of tho tumor. The knife only removes the hopelessly diseased tissues that are most apparent to the senses and most accessible. But around the tumor itself, and perhaps on every side, there is an areola of morbid and semi-morbid tissue mingled with or inclosed by healthy tissues that are gradually and imperceptibly shading off into morbid tissues. When now we remove the tumor and close up the wound, we leave the areola mostly untouched, and shut up the cancer-cells in a soil best of all adapted to nourish them. Hence we need not wonder that the disease recurs either immediately in or near the place of removal, or that the cells wander to some distant part where another tumor appears after months or years.

The morbid or semi-morbid tissues that surround malignant tumors have been treated in various ways by caustics, in substance, by caustic needles, and by the actual and galvano-cautery. So far as I can learn from the experience of surgeons who have faithfully tried any one or all of these methods, the results are more satisfactory than the results of ordinary treatment by the knife or ligature. Dr. Stephen Smith informs me that he experimented some years ago quite extensively with the caustic needles. These were made of chloride of zinc, and thrust into the tissue around the tumor. There effect was to destroy not only the tissues immediately around each needle, but also the tissue between them and at some distance from them. The results of this treatment were, in his opinion, which is based on quite a number of cases, more satisfactory than the ordinary treatment.

The theoretical arguments that electrolysis of the base would produce more radical results than the use of caustics are based necessarily on our ideas of the nature of the electric force and of the process of electrolysis. When electrodes connected with the two poles of a galvanic battery are inserted into tne animal tissue, the vibrations of the electric force not only pass between the electrodes, but extend at a considerable distance in all directions from them. While most of the vibrations appear at the poles, very many extend at a distance from them, varying with the strength of the current and the conductivity of the tissues, and thus the nutrition of the surrounding tissues is more or less modified. In this way, it is possible that the degeneration of healthy into morbid tissue may be prevented, at some distance from the electrodes and from the median line between them.

Besides this general modification of nutrition through the chemical and other action of the current, there are two other effects that are to be considered. These effects are cauterization and destruction of tissue. Just how much these effects contribute to the results of this method of treatment, I am not yet able to determine. In a protracted operation with strong currents, the cauterization is so great as to make the base worked over present the appearance of a charcoal-pit. The hemorrhage, excepting that which comes from large arteries, is of course stopped. The destruction of tissue that takes place during the operation is not great, but after the operation, it appears in the form of sloughing, which sometimes is quite extensive.

The destruction of tissue that takes place dnring the operation is the result in part of the electrolysis and in part of the cauterization, but is mainly due to the former. It should be kept constantly in mind that this chemical effect—the electrolysis—is the effect that is especially sought for in the method of working up the base, and it is by virtue of this mainly, though not entirely, that the permanency of the results are due.

PRACTICAL VALUE OF THE ORDINARY METHOD OF ELECTROLYSIS.

Although the ordinary methods of electrolysis and the processes of external electrization with moistened electrodes fail to cure malignant tumors, they are yet of a certain palliative efficacy, and may be adopted in those cases where the method of working up the base is impracticable, and when any attempt at radical cure is inadvisable.

1. The majority of cases that are attended with pain are relieved of this pain more or less permanently by the galvanic current, whether applied externally by sponges, cloths or metals, (catalyzation), or subcutaneously by needles (electrolysis).

In some cases, the relief of pain appears during the application: in others, some time after the close of the sitting. It may last for several hours, or days. The galvanic current seems the more efficacious for this purpose than the faradic. A strong current is not required; indeed, may sometimes enhance the pain already in the tumor, and in some cases a too prolonged sitting may do harm. There are cases, however, where the current may be used for hours.

The power of ordinary electrolysis to relieve the pain of hopeless cases of cancer was well shown in a case of scirrhus of the breast, that was referred to me by Dr. Skene. I could not prevent the extension of the disease; but, from the application of the current, through all the experiences of several operations, she suffered but little pain, and in gratitude for that, she allowed me to experiment with her as much as I wished.

Two years ago, I was called to Bridgeport, to see, in consultation with Dr. T. G. Lewis, a case of malignant tumor of the abdomen, for which I advised prolonged galvanization. For several hours a day the current was allowed to run through the tumor, and the pain

and distress were very greatly relieved thereby. When the patient died, a colloid, weighing fifteen pounds, was found in the abdomen.

In two cases of recession of cancer of the breast to the axilla, the pain was not relieved.

In a case of epithelioma of the tongue—a patient of Dr. Burge—there was immediate, though temporary and limited, relief of the pain by the application of the galvanic current. The relief, after some of the applications, would last for several hours, and even one or two days. The patient has died of the disease, but lived long enough to demonstrate the power of the galvanic current to relieve somewhat a most serious phase of disease, and that, too, in a locality where only very mild currents can be borne.

2. The electrical treatment, both external and subcutaneous, causes more or less diminution of size in morbid growths, and, in occasional instances, tumors may entirely disappear under external electrization alone.

The cases of entire disappearance are, as we have seen, exceptional; but they are facts, none the less, and must be considered in giving a *resume* of the present state of this department of electro-surgery.

Under either current, a tumor may go down all the way from one quarter to one half. In some cases, this retreat of the disease before the current is temporary; in the course of months or years, the morbid forces recover their courage, and again advance, but in other cases the result is quite permanent. Goitres, especially of the cystic variety, and old goitres that are not too large and too dense, can by this method be greatly reduced in size, and in some cases are entirely cured. Similarly, fibroids of the uterus can be reduced in size, and many of the unpleasant symptoms which they cause can be mitigated.

The explanation which I have to offer for the reduction of tumors under electricity is the following:

First. Stimulation of the absorbents, so that morbid matters are taken up into the circulation.

This result may be attained by external electrization with either current. The faradic current by its mechanical influence undoubtedly stimulates the absorbents, and thus causes reduction in the size of growths. A certain percentage of cases have been known where, under faradization alone, morbid growths of some size have entirely disappeared, and the moderate and limited subsidence of such growths, under the exclusive use of the faradic current, is a matter of frequent observation.

Secondly. The electro-chemical decomposition of the fluid constituents of the growths. Not only the water of the blood, but the saline solutions of all the tissues are, under the galvanic current especially, subjected to the chemical changes, acids and oxygen going to the positive, and alkalies and hydrogen going to the negative pole. The elements thus decomposed are, we may suppose, partly absorbed, and partly escape to the surface.

These chemical changes are, of course, most marked when the needles are used—electrolyzation; but there is every probability that they occur during external galvanization. When we consider that the human body is mostly fluid, we can readily enough understand why this decomposing power of the current should be an important factor in causing the reduction of tumors.

Thirdly. Coagulation of the albuminous constituents. Blood is coagulated by the galvanic current at both poles, and especially at the positive, as I have repeatedly demonstrated by a variety of experiments on animals, and we may believe that in a similar way the albuminous portions of the tissues are coagulated in the region near where the needles are inserted.

Fourthly. Actual destruction of tissue by the thermic or heating power of the current. Cauterization is not the leading factor, as many suppose, in the treatment by galvano-puncture; it is merely an incidental effect of the passage of the current through the poorly conducting human tissues, and of the chemical action evolved by the current, and is not the effect that is especially desired, and only plays an important part in those cases where very strong currents are used with prolonged applications.

ADVANTAGES OF THE METHOD OF ELECTROLYZING THE BASE.

1. Less liability to recurrence.

I have kept close watch of a majority of the cases that have been treated in this way during the past three years. In the list of cases are found several epithelioma of the lips and face, and one case of malignant cystic of the neck. But one of the cases of epithelioma of the lips and face has yet recurred; although the time that has elapsed since the treatment varies all the way between three years and four months. The case of malignant cystic has not yet recurred. It is yet too early to arrange any statistics on this subject, for, as every surgeon knows, some cases of epithelioma are permanently cured by the knife, and their prognosis under ordinary surgical treatment is better than that of scirrhus of the breast, or indeed scirrhus anywhere. It is a fact of high encouragement for this method of working up the base, that the case of malignant cystic tumor, and one of the cases of epithelioma has previously been operated on by various other methods, as the knife or the ligature, and in each case there had been rapid recurrence. If the experience of the future shall confirm the experience of the past, if a larger induction shall

show as satisfactory results in proportion to the cases I have thus far treated, then the question will in time be settled beyond dispute.

Some hopeless cases—notably a case of scirrhus of the rectum, and epithelioma of the vagina—I have treatedby this method in order to palliate the symptoms and prolong life, and with most interesting and remarkable results. Indeed, I have been so much encouraged by the palliative effects obtained in these hopeless forms of malignant disease as by the apparently radical cures of milder cases.

It follows, from the theoretical considerations above given, and experience confirms this view, that the results of this method of working up the base will depend entirely on the thoroughness with which the operation is performed. If the base is but half electrolyzed, if patches of morbid tissue be allowed to remain, then there will be a recurrence in all probability, just as after other modes of operating. I have tested this in cases in which for anatomical reasons, it was impossible to thoroughly electrolyze the base, and in all cases there was a recurrence. Better not use the method at all than use it timidly or imperfectly. The operation should not cease until the whole base of the tumor and the surrounding tissue for a considerable distance have been completely worked up, and any enlarged glands should be treated in the same way; for although more or less morbid tissue may be removed, yet it is not safe to trust to that, as I have found by fair trial.

If the theory of cancer on which this method of treatment is based be sound, then it is not right to assume that when a person who has been operated on for cancer develops another cancer months or years afterward, that the second growth has any direct relation to the first; it may have arisen independently, under some form of local irritation, and might have occurred even though the first one hnd never existed. The question may arise quite frequently whether a cancer that follows a removal—whatever method of operating be adopted—is a secondary or independent growth.

During the past winter, a lady was brought to me by Dr. A. N. Dougherty, of Newark, with a large and rapid-growing tumor of the scalp. Two and a half years before, Dr. Dougherty had removed a scirrhus from the breast. A German pathologist thinks he has seen the ameboid movements of the cancer-cell, and it is possible that the remains of the tumor may have traveled from the breast to the vertex; but it is, to say the least, just as probable that constant irritation of the heavy comb which the patient used had acted as an exciting cause of a separate and independent cancer, that would have appeared even if the cancer of the breast had never existed.

In regard to the prognosis of malignant tumors under this method of treatment, then these three facts are worthy of consideration:

Firstly. Some forms of malignant tumors are disposed to extend much more rapidly than others. Thus scirrhus spreads more rapidly than epithelioma.

Secondly. The rapidity with which a malignant tumor extends is very much modified by the structure of the part in which it occurs. In glandular and in soft and mucous tissues, a malignant tumor extends more rapidly than in the skin or in hard tissues. In making the prognosis, therefore, it is even more necessary to consider the *locality* of a malignant growth than its precise nature. An epithelioma of the tongue or vagina has a far more rapid course than a similar tumor of the face. A scirrhus of the womb has a worse prognosis than an external scirrhus. All this is explained by and is in harmony with the theory of cancer above given. In soft tissues, the cancer-cells travel easier, and thus more rapidly affect the surrounding parts.

Thirdly. Tissues whose organization is low, or which are in a cendition of degeneration, are specially disposed to take on cancerous degeneration. Thus, the breast and the womb at change of life are more disposed to cancer than earlier in life. Cicatricial tissue always invites cancerous degeneration.

2. Less hemorrhage than other methods of operating. The reason for this has already been explained—electrolysis coagulates the blood, constricts the tissues, and slightly cauterizes them. Ordinary parenchymatous hemorrhage is thus controlled in the most satisfactory manner, so that if a strong current is used, neither sponges nor styptics are required. This power of electrolysis to prevent ordinary hemorrhage in operations, I have shown in treating cases of growths of exceeding malignity.

The cauterizing and coagulating power of electrolysis is not usually sufficient to check the hemorrhage when an artery of any size has been ruptured, as I have found out by actual experience in two cases where I was operating with Dr. A. B. Crosby. I made little attempt to check the hemorrhage by the needles, preferring that Dr. Crosby should tie it, which he did.

3. Less liability to shock. I form this judgment from protracted operations made on patients in various stages of debility, and in the extremes of life, infancy and old age. I have not yet seen any effect at all suggestive of shock, after very long sittings under strong currents, even where sensitive localities were operated on. The electric current would indeed appear to be one of the very best *antidotes* to shock. and for a long time it has been known and used as a means of resuscitation.

4. It is followed by a more satisfactory healing than other operations. This fact has been observed markedly in several severe and hopeless cases, and has attracted the attention of all the surgeons who have seen the cases. (In illustration, see the case reported by Dr. Crosby, in the May number of the ARCHIVES OF ELECTROLOGY AND NEUROLOGY, pp. 98-103).

5. There is reason for the belief that the future will show that septicemia and pyemia are less likely to follow electrolysis than other surgical operations. It is more than probable that electrolyzation, like cauterization, constringes the absorbents so that they cannot as easily take up pus with the circulation. I am well enough aware that years must elapse before this question can be statistically demonstrated, but it is certain that in the very many operations in the vagina, rectum, and in localities that would invite pyemia, no such result has followed. Dr. Byrne tells me that in all his operations with the galvano-cautery, no case of pyemia has occurred, and that excellent healing usually follows. Dr. Livingston, of New-York, who has had much experience with the galvano-cautery, gives me the same testimony.

6. To all these facts must be added the consideration that many patients dread the knife—without reason it may be, and without common sense; but patients are not expected to exercise reason or common sense—and such persons are willing to submit to electricity, however employed.

The advantage of working up the base by electrolysis, as compared with working up the base by caustic, the actual cautery, or the galvano-cautery, are worthy of study. Some of the advantages claimed for electrolysis of the base, quite as truly belong, in a certain degree at least, to galvano and actual cautery and the caustic needles. All these methods tend to constrict the absorbents, and thus prevent pyemia. All of these are followed by sloughing, with whatever benefits may come from loss of tissue. Any one of these would seem to be better for a malignant tumor than the knife or ligature, when used alone. It is hardly probable, however, for the reasons above given, that the prospects of radical cure after cautery will be as good as after electrolysis.

An extended experimental comparison of their effects, in this regard, has not yet been made.

DISADVANTAGES OF THE METHOD.

Against the advantages of electricity, must be set these disadvantages.

1. It requires apparatus more or less bulky, and that require more or less experience in their management. Simple external applications may be made with currents from comparatively small batteries, but powerful electrolyzation requires from 15 to 30 or 40 cells of reasonable size. Batteries for electrolysis can be made portable, or at least transportable, so that they may be taken from house to house, and moved through the different wards of the hospital.

2. Electrolytic operations frequently require more time than operations with the knife or ligature, and in some cases, the operation must be repeated.

If electrolysis produced shock, this element of time might, perhaps, be a serious one; but, inasmuch as it appears to act as an antidote to shock, and as the stimulus of the current allows us to prolong anæsthesia with safety, and, as in many of the cases where electrolysis is used, treatment by knife or ligature is contra-indicated, this objection need not deter us from resorting to it.

3. The irritative fever that follows powerful and prolonged electrolytic operations is sometimes quite severe. This fever rises to its highest the second and third day after the operation, and then gradually subsides. The parts around the tumor operated on become more or less swollen, but are not usually painful, and this swelling also soon subsides.

4. When great sloughing ensues, in very vascular growths, there may be secondary hemorrhage from blood-vessels that become involved.

There is usually no difficulty in ascertaining whether there is probability of secondary hemorrhage, either from our knowledge of the vascularity of the parts, or from tentative operations with the needles.

Looking now at the general subject of the electrical treatment of tumors, I conclude that this method of working up the base, as an additional supplement to other means, is entitled to consideration among the surgical procedures of the future. It will not be used recklessly nor indiscriminately, nor with overweening confidence; but its indications and contra-indications will be understood both by surgeons and electro-therapeutists, and the result may be a positive advance in the art of healing—not so complete a victory as we would wish, but yet an important consolatory something; and this, in time, may prepare the way, we may hope, for further and better victories by other agents, in the generations to come.

Before closing, it is proper to state that the ordinary method of electrolysis, if thoroughly used and repeated a sufficient number of times, may run into this method of working up the base, and in epithelioma, at least, may accomplish good results. The body of the tumor may be gradually broken and destroyed; and then, in successive operations, the needles may be made to work up the base and the surrounding tissue. Groh, of Vienna, has used this method with success in quite a number of cases of epithelioma, as well as of sarcomatous growths. I have used the same

method in epithelioma, and with success. The method has, however, the sufficiently serious objection that it first wastes the time and strength of the patient on unnecessary treatment of the tumor, and is only successful in proportion as it falls back on the method of working up the base and surrounding tissue. —*Archives of Electrology and Neurology, May*, 1874.

LA PITIE HOSPITAL—SERVICE OF M. VULPIAN. TUMOR OF THE CEREBELLUM—CONNECTION BETWEEN DISEASES OF THE OPTIC NERVE AND BRAIN AFFECTIONS.

TRANSLATED FROM LE PROGRES MEDICAL, BY W. B. HAZARD, M. D.

We have had occasion to observe a patient affected with a tumor of the cerebellum in the service of M. Vulpian. After having briefly recalled the principal points in connection with this patient, and indicated the relations which exist between the phenomena noticed during life, and the teachings of physiology; we will add some biographical notes relative to atrophy of the optic nerves in cases of cerebral tumor. These notes were communicated to us by Dr. Landolt. The case is that of a woman aged 27. Nothing of importance was discovered in her previous history; she had had variola, from which she had perfectly recovered two years before her entrance into the hospital. Some time before this epoch, she had been subject to nausea and bilious vomiting; besides these phenomena were more or less frequent and persistent until death. In the month of May, 1872, in working, she noticed that vision became suddenly deranged, that it was even totally abolished during crises which lasted for two or three minutes.

In June she commenced to feel sharp pains —a sort of twinging and cramping—commencing at the shoulders, and radiating toward the arms and forearms, and accompanied by tingling in the hands; these pains were bi-lateral. There soon intervened giddiness, hallucinations of sight, syncope, and a tenacious frontal and median headache.

In the month of September the legs became tremulous and more feeble. In October the ocular attacks were more frequent; all at once, following one of these attacks, she perceived that the ameliorations which until then had followed the momentary losses of sight, appeared no more, and vision was lost; she still for some time after was enabled to distinguish day from night, but this soon became impossible.

14th December, 1872. The pupils are dilated and immovable; to-day sensibility of all kinds is intact. The headache, the lapse of consciousness, the tingling in the members, the trembling, the giddiness, and the vomiting persisted more or less pronounced during the patients long stay in the hospital.

July 26, 1873. She has a transient external strabismus of the right eye. August 28th, she was examined by the opthalmoscope; on both sides was found an atrophy of the papillæ presenting the characters of an atrophy following optic neuritis; the muscles of the eye and eyelids were in no way paralyzed; at this time she had a continual nystagmus. September 2nd. It was ascertained that she had lost the sense of smell. October 26th. She can still walk; nevertheless she finds that her legs are much more feeble than at the date of her entrance—walking is, notwithstanding, regular; she does not drag her feet; the toes are normally raised. October 27th. First epileptiform attack, Oct. 30th. Second attack. After this she had them quite frequently.

February 21, 1874. Facial paralysis occurred on the right side, incomplete for the orbicularis palpebrarum; at the same time electrical contractility disappeared in the paralyzed muscles. April 1st. The patient fell into a profound coma, and she died on the 3d at 5:30 a. m.

Autopsy.—The autopsy was made the same day, and showed that the anterior part of the right cornua sphenoidalis presented a notable softening, yellowish white, occupying the white substance; at this point the dura mater showed several growths analogous to the tissue of the cerebellar tumor; the largest was of the size of a pea; a certain number were situated on the external surface of this membrane, and were imbedded in the middle fo sa of the skull. The tubercula quadrigemgemina presented a well marked alteration; they were flattened and confounded together, forming a yellowish brown mass, softened in places, and seemed to be continuous behind with a tumor occupying the cerebellum.

The tumor was of the size of a hen's egg; it was situated obliquely from above downwards, and from before backwards; its great diameter was antero-posteriorly in the thickness of the cerebellum, between the right and left lobes, which it separated; it occupied the site of the median lobe, or superior vermiform process, which it almost entirely flattened. The anterior extremity extended to the tubercula quadrigemina, which it compresses at the median portion of the fissure of Bichat; the posterior extremity terminates with the external contour of the cerebellum. The superior face is easily perceived on separating the two lateral lobes; the inferior face depresses and stretches the inferior vermiform appendix, of which it appears to be a part. There is no granular condition of the superior surface of the fourth ventricle. In short, its exact situation can be described by saying that it occupies the fourth ventricle completely.

TABLE OF CASES.

OBSERVERS.	DISEASES.	OPHTHALMOSCOPIC SYMPTOMS.
HUGHLINGS JACKSON	Tumors of the vermiform appendix of the cerebellum, producing pressure on the corpora quadrigemina and vena galeni, thus causing hydrocephalus	Atrophy of both optic nerves. The diagnosis was deduced from the presence of hydrocephalus. The author observed that swelling, and consecutive atrophy of the optic nerves in nearly all cases of cerebral amaurosis, due to apoplexies of the anterior or middle lobes, or the presence of tumors in the most diverse places in the cerebrum or cerebellum may be due.
BURMER (LADAME.)	Tumor of the left lobe of the cerebellum and of the medulla oblongata.	Atrophy of the papilla of the optic nerves, most marked of the right. Contraction of arteries and dilatation of veins. The diagnosis was made by the aid of other symptoms.
BLESSIG (of St. Petersburg.)	Tumor at the base of the skull.	Atrophy of both optic nerves.
KOSTER (Nederl-Archiefvoor.)	Tumors of the cerebellum.	Swelling of the optic nerves, dilatation of the veins, contraction of the arteries.
GRÆFFE.	Expressed the opinion that the cases, where simply atrophy of the optic nerve is found without antecedent neuritis most frequently indicate tumors at the base of the skull, which from their inception interrupt nervous conductibility. The author also seeks to establish the differential diagnosis between neuritis and optic atrophy, proceeding from cerebral tumors, and those produced by a meningitis. This opinion was shortly afterwards refuted by *Lebert*, who, in Græffe's service made contrary observations.	
LEBER.	Myosarcoma of the cerebellum.	Double optic neuritis followed by atrophy. Neither ophthalmoscopic nor microscopic examination of the eyes demonstrated anything characteristic of the location of the disease.
HIRSCHBERG.	Solitary tubercle of the cerebellum (left side) consecutive hydrocephalus.	Double optic neuritis, more marked of the left than the right, where atrophy had already commenced, nothing characteristic of the position of the tumor.
GALEZOWSKI.	Tumor of the cerebellum, and of the cerebellar peduncles (right cerebellar fossa behind the petrous portion of the temporal bone.	Complete absence of alterations in the papillæ at the beginning. After eight months double optic neuritis proceeding to the stage of atrophy. (See third page of the extract.) The author pretends that the intra-cranial pressure has nothing to do with the optic neuritis, but that the latter is due to propagation of the disease along the fibres of the optic nerve.
REYNAND.	Partially softened tubercles of the cerebellum, and of the corpora striata.	Double optic perineuritis. Exudation upon the borders of the papillæ, veins varicose, arteries small (Galezowski.)
LACROZE.	Great infiltration of serum at the base of the skull, and into the lateral ventricles.	
SAEMISCH.	Tumor of the left side of the pons varolii, and of the medulla oblongata.	Double optic neuritis and inflammation of the neighboring portion of the retina.
	Sarcoma compressing the cerebellum and the cerebrum.	Atrophy of both optic nerves.
WILLIAMS.	Tumor of the right side of the cerebellum. Intra-cranial pressure greatly increased.	Double optic neuritis. Considerable swelling of the veins.
HARNER (LADAME.)	Says that the location of the tumor is without influence upon the opthalmoscopic aspect of the papilla; but that the latter depends upon the pressure which may result from it, and which may cause a hydrocephalus, particularly in the third ventricle, when the tumor is found in the cerebellum.	
HARNER.	Tumor situated at the base of the skull, occupying the chiasma, the right meatus auditorius internus, and the right inferior occipetal fossa.	Double neuro-retinitis, consecutive atrophy of the optic nerve and retina. Paralysis of all the ocular muscles following the compression exercised by the tumor upon the corpora quadrigemina.
HARNER AND LANDOLT	Cholesteatoma of the cerebellum, and of the base of the skull.	Double optic neuritis well marked; more so on the right than on the left.
	Increase of intra-cranial pressure,	Retinal apoplexies.
	Gummy tumor of the center of the cerebellum, of the crura cerebelli, ad frontem in front of the nucleus dentatus.	Double optic neuritis veins dilated. Papillæ of the optic nerves swollen, cloudy, gray, reddish. (Optic perineuritis ascertained after death.)
	Tumor of the same nature in the left hemisphere of the cerebrum.	Progress of the disease.
J. HUTCHINSON (London Ophth. Hosp. Reports.)	Says that atrophy of the optic nerves is found as cause of cerebral amaurosis following tumors of the cerebrum and of the cerebellum, increase of intra-cranial pressure, apoplexy, embolism, cerebral syphilis and nicotinous intoxication.	

This tumor is not intimately joined with the neighboring parts. Its superfices are enclosed by a sort of fibrous shell, and it is easily isolated. Its consistency is softish, even after remaining long in alcohol; it is reddish, and is composed of fine filaments; in its whole extent at the periphery as at the center, it is permeated with numerous vessels. A small attached portion having been suitably hardened, being examined under a microscope, showed the following characters: Cells are found as principal elements; some small, others large, having one or several nuclei; quite a number of the latter have prolongations, which anastomose with those of the neighboring cells; here are also to be found fusiform bodies; a very fine fibrillated reticellum, and numerous cells; blackish, as if pigmented; it it may be said that these granular bodies flattened and softened are large cells filled with hæmatic pigment. It is therefore the tumor described by Virchow under the name of gliosarcoma.

Such is the history of our patient. As we have seen she had not properly speaking ataxy of movement; there was simply weakness of the limbs and tremors. This fact is in keeping with the teachings of experimental physiology. Sight had been lost for a long time; but it is important to remark that the tubercul a quadrigemina were destroyed by compression, and that the optic bands were grayish and atrophied; blindness, then, does not militate against the doctrine, which science has accepted, that the optic tract is arrested at the tubercula quadrigemina, and are without any sort of connection with the cerebellum or the peduncles. It should also be noted that

sensibility remained intact during the whole duration of the development of the tumor, a phenomenon in contradiction to the theory that the cerebellum is the seat of general sensibility. This fact should be remembered in addition that our patient never had vertigo, nor a feeling of turbination, nor rotary movement, nevertheless the cerebellar peduncles were compressed and separated by it.

Some authors have maintained that in opthalmoscopic examination it is possible in a certain number of cases to recognize the seat of a tumor. In the annexed table for which I am indebted to Dr. Landolt, may be found a number of cases which have been thus examined; with this result, that the localization of the cerebral disease by the simple opthalmoscopic image (without other symptoms) is almost always impossible; conclusions may be drawn from these examinations, as to the nature of the disease, as in case of tubercles of the choroid, but not always. It would occupy too much space to analyze all this bibliographical material; but I add it to this communication, as it possesses a certain significance.

I.—*Opthalmoscopic Phenomena.* Atrophy of the optic nerve without preceeding neuritis, is found in a great number of diseases of the cerebrum, of the cerebellum, and of the spinal cord; tumors, softening, dementia, loco-motor, ataxy, etc., without our being able to draw from the opthalmercopic appearance of the papilla, any conclusion as to the structure or seat of the disease.

II.—*Optic Neuritis*: (true) Yellowish or reddish swelling of the papilla, and of the adjacent portions of the retina, which have lost their transparency, have become clouded and infiltrated with leucocytes. Active and passive dilatation of the vessels, sometimes retinal apoplexy; and hypertrophy of the connective tissue. The neuritis is almost without exception followed by complete atrophy of the papilla, and of that part of the retina involved in the inflammation, in such a way that we find the papilla white, surrounded with a circle, a white ring of hypertrophied and newly formed connective tissue. This form of optic neuritis is almost always a sequel to the extension of a meningitis. It is evident that the meningitis itself may be simple or the complication of another cerebral disease.

III.—*Swelling of the papilla of the optic nerve from venous stasis.* This is also called optic neuritis, because the opthalmoscopic appearance of the papilla resembles much that of a true neuritis, but it is not a genuine inflamation. It is the sequel of venons stasis. The veins dilated, tortuous and accompanied by apoplexies, permit a serous transudation which is imbibed by the tissue of the papilla and cause a swelling which is much greater than that of neuritis properly so called. The color is usually grayish and semi-transparent. The arteries are mostly concealed in this tissue. The retina is less changed than in the preceding form. This œdema of the papilla may cease after some time without atrophy of the optic nerve or loss of vision supervening, but almost always its cause is of long duration.

A true neuritis may be developed without the intervention of a veritable inflammation; this œdema of the papilla is followed by atrophy of the same, but which usually does not extend to the adjoining retina and does not form the tendinous ring which is found after true neuritis.

The processus is sometimes the sequel to compression of the cavernous sinus and consequently of a stasis in the ophthalmic vein, but much oftener the consequence of the increase of the intra-cranial pressure which causes a stasis in the liquid of the intervaginal space of the optic nerve, which is in direct communication with the arachnoid space of the brain. Swelling of the optic nerve, by venous stasis, then, may accompany all cerebral diseases which augment the intra-cranial pressure: hydrœephalus, tumors, &c., &c.

Localization of cerebral diseases by the simple ophthalmoscopic image (without other symptoms) is, then, almost always impossible; after what we have just explained; nevertheless, we can sometimes draw from them some conclusions upon the nature of the disease, but not always. The only case in which we can be positively certain of the nature of the cerebral disease, is when tubercles are found in the choroid. Then we have the right to diagnosticate, solely from the aphthalmoscopic examination a tuberculous meningitis.

Much has been said and written of late, of the sex *in utero.* A very interesting and instructive report on this subject, by A. B. Strong, M. D., and D. A. R. Steele, M. D., founded upon observations made in one hundred cases, was read before the Chicago Medical Society, July 30, 1874.

"While the child is perfectly quiet, the heart is tolerably uniform in its pulsations, but by the least movement the pulse is greatly accelerated, increasing thirty to forty beats in the minute. * * * * *

"Throughout a natural labour, the action of the heart is variable. For example, in one case the pulse was steady for several days at 124; during the first part of a pain it increased to 150; during the latter part it sank to 60; during the first part of the interval it increased to 170, and then decreased and became steady at 134.

From their observations they make the following deductions:

1. "In the majority of cases male fœtal hearts are slower than female.

2. One hundred and thirty-two fœtal pulsations per minute is the average which constitutes a dividing line between the sexes. Below this, 68 4-7 per cent. are males, 20 per cent. are females, 11¾ per cent. are doubtful. Above this 53⅓ per cent are females, 26⅔ per cent. are males, and 20 per cent. are doubtful.

3. The most accurate observations are made during the last four weeks of gestation.

4. The rapidity of the heart's action is increased in proportion to the feebleness of the fœtus.

5. Calcarious or fatly degeneration of the placenta renders the pulsations feeble or irregular.

6. In some cases it would be possible to diagnose diseased conditions of the placenta, from careful observation of the fœtal heart.

Of fifty cases examined consecutively, twenty-seven gave birth to female children and twenty-three to males. The lowest rate observed was 118; it occurred but twice; once each in a male and female child. The highest rate noted was 180, occurring three times, twice in males and once in the case of a female. The average rate of the male pulse was 136; of the female 137; of both sexes 136.7. Considering the latter as the dividing line between both sexes, a pulse at and below this rate may be referred to males, and that above it to females. In twenty-six cases the sex was correctly predicted, and in twenty-four an error was made. If the cases be excluded where there was unusual activity of the fœtus, the average rate of the male pulse will be found to be 133.6; of the female 136.2; of both 134.7. Considering, then, 134 as the dividing line between the sexes, the diagnosis was correct in 24 cases, and incorrect in 21. If, however, 128 be taken as the dividing line, the diagnosis was correct in 28 cases, and incorrect in 22.

There were six female children whose pulse was steady below 128; five males had a steady pulse between 128 and 138; three between 138 and 148; two between 148 and 158, and one between 158 and 168.

So far as the facts elicited from these observations are of value, it is evident that they have utterly failed to furnish a basis for determining the sex *in utero*.

In conclusion, it may be generally stated that we find an opinion as to the sex of the child, founded on the rate of the fœtal pulse to be of little more value than a guess.—*Med. Exam., Aug.* 15.

In a paper read before the medical society of the State of Tennessee, April, 1874, by Dr. Thomas Liscombe, he considers morphine and tincture veratrum viride, given alternately, to be the sine qua non for peritonitis, whether puerperal or non-puerperal. He begins with tinct. verat. vir. gtts vj, and repeats it every three hours, increasing the dose one gtt. each time unless sickness of stomach or subsidence of fever should result, thereby indicating that a farther increase of the veratrum was not required.

He farther says that the veratrum is unequaled as a therapeutic agent in all the phlegmasia, with their accompanying fevers. More especially is this the case in pneumonia, pleuro pneumonia, and pleuritis.

CHOREA—NEW METHOD OF TREATING.—Dr. Ransom Dexter, of Chicago, reports a case of acute chorea, which, continuing for ten days to grow worse under the treatment usually pursued in this disease, was cured in six days by keeping patient in a darkened room and enjoining the most strict quietude in every particular, even to lying as perfectly still as possible upon a lounge, that the nerves of touch might not be wrought upon. Also, in every other particular pertaining to the fine senses and muscular motion. Along with the rest the Doctor continued to give the anodynes before exhibited.—*Chicago Journal, Aug.*, 1874.

OAT MEAL FARINA AS A FOOD FOR INFANTS.

MM. Beaumetz and Hardy recommend very highly the use of oat meal farina in the feeding of young children. According to these gentlemen, this farina resembles human milk most closely in its plastic and respiratory elements, and contains, in addition, iron and phosphates. It has besides the property of preventing or arresting diarrhœa, which so frequently occurs in young children. Some infants of four to eleven months, who were fed

upon this farina, were found to grow equally well with those who were nourished by the milk of a good nurse.

SIXTEEN GRAINS OF MORPHINE FOR SIXTEEN DAYS.—Dr. R. D. Winsett, of Nashville, Tenn., reports a case of traumatic tetanus in the *Nashville Journal of Medicine and Surgery*, with a favorable termination, in which sixteen grains of morphia sulph. were taken daily for sixteen days.

Editorial.

THE PHYSICIAN FARCE BILL.

A recent act of the Missouri Legislature obliges every person engaged in the practice of medicine within the State, to give the County Clerk in the county where the practitioner may reside, one dollar, and have their names recorded as doctors. This is a quick, cheap, and easy way of making doctors. What a farce! If the law had explicitly stated that all, whether they have diplomas or not, should appear before a competent board, and be examined; and that all the most ignorant should at once quit the practice, and that those better informed be registered as doctors on a numerical scale, expressing their relative merits, number one being the standard, the act would have been wise, but it is otherwise—*unwise.*

As the law is interpreted, the whole brood that are practicing medicine, even those having no more qualifications than an ordinary drayman, may continue to ply their assumed calling, and deceive and swindle their too confiding friends. We say this without respect to diplomas, for these alone furnish but little evidence of merit; they only indicate that the man who displays that much coveted sheep skin in a huge frame in his office, has been to college, but it is often like the fabled box given by Jupiter to Pandora.

And another feature of this law shows its weakness still more. Not only those who are now playing doctor, but every person who concludes to begin the business now, or in the evening of the last day of this month may go and register with the doctors, and the law recognizes them as doctors.

Now, the plain truth is, that if it is a wrong, a cheat and a swindle, for uneducated people to foist themselves upon the people of Missouri as doctors after the last day of this month (August), it is wrong for those who have been gulling the people for years to continue to do so.

Count every man you come to on the street till you have a hundred, and they will average with state legislators generally in intellect. A majority of our legislators evidently supposed that those who have practiced medicine for years are necessarily doctors—that they are experienced. What a fallacy! None but the educated can perceive the changes and indications in a diseased organism; and without this knowledge it is impossible to make observations, or to get experience. Why are not all old people, who have attended the sick all their lives, doctors? For the same reason that we cannot view the beauty, harmony, and relative motions of the worlds around us only with scientific eyes, and therefore cannot by observation alone become astronomers.

We do not remember when we were so young a boy that we thought a man could become a doctor simply by practicing medicine, even for a thousand years. Nor even if he give the subject a smattering reading, or even pride in the study of details, without studying and fully comprehending the underlying principles presented to view by physiology and pathology. And even then he is a professional cripple if he does not call to his aid the whole range of collateral science. C.

We are very much indebted to our friends for their interest displayed in gaining subscribers for the RECORD, and we are happy to state that within the past month our circulation has increased at least twenty-five per cent.

A COOL REQUEST.

Prof. E. S. Gaillard, M. D., LL. D., has written us a letter enclosing a printed advertisement of a "beneficiary scholarship," as he terms it, of the Louisville Medical College, which he asks us to insert in our editorial of the "next issue," "or a better one if you (we) will;" and he requests us to print this interesting item, (which he heads, "Important to Medical Students,") of news without pay, or any other remuneration save what springs from an *approving conscience!* As we have good reason to believe that the above named gentleman has been addressing similar requests to editors generally, secular and non-secular, throughout the country, we feeel constrained to make some explanations concerning this school.

Besides the medical college in question, there is a medical school in Louisville, known as the "Medical Department of the University of Louisville." To this institution the students who go to Louisville are extremely partial—to such a degree in fact that the other faculty soon saw that unless they did something extraordinary, it would not be long before they were in the unenviable position of professors without students, and they would soon either have to quit lecturing, or else lecture one another; or close up their college. But their proud natures would submit to none of these alternatives, and to avoid them they immediately advertised that they would give a scholarship to every senator and congressman throughout the land, and also admit the sons of physicians and clergymen upon the payment of the *matriculation fee.* This being a great act of charity and magnanimity, they would be enabled to get it advertised extensively without charge. They also hoped thus to enlist the senators, clergymen and physicians who had sons, to educate in their behalf, and thus fill up their empty benches. But alas! they were still outstripped by their rivals at home, and their neighbors across the river in Cincinnati. Something further must be done; and now their "trustees" (trustees!!) "appreciating the impoverished condition of the whole country, have determined to grant a "Beneficiary scholarship to any young man, * *, who is unable to pay for his education."

This, in a few words, is the state of the case. Now, it is stated by a Chicago journal, and we have the same in substance from other sources, "that these "poor" students find, after getting into this "Pauper School," that it is the old comedy over again of paying 25 cents to get in, and $25 to get out; or, in other words, that they have ingeniously contrived, by means of extras, matriculation and graduation fees, to make these poor young men pay as much before they get through with them, as the sum demanded of more fair dealing colleges."

From the above we hope it will be understood by the press that this college is a private enterprise, under the control of a faculty who, whether from lack of merit as lecturers, or want of attraction in their school, have been induced to resort to this very questionable method of procuring students. If any additional evidence were needed, it is furnished in the fact that *any* medical college in the United States will receive any young man who is a proper and true object of charity upon the truthful representation of the case to the faculty. But none of these colleges herald such a fact (which is everywhere known) with the object of gaining students, whilst privately begging newspaper editors with the dissembling of true mendicancy to publish these degrading proposals without charge. To our medical brethren we have just this to say: These gentlemen offer a premium to every young man in the country to dissemble and lie; to barter away their manhood. All he has to do is to represent to the Dean that he is a poor young man, and desires to be put on the beneficiary list. He may be worth a hundred thousand dollars, and yet be entered as a pauper. It is

but just and proper that a helping hand should be extended to the really deserving; but how can we respect a corporation, which, under a flimsy pretence makes its offers indiscriminately, or how can we honor a diploma gained, as too many will be gained by misrepresentation. Of course, a certain number of the graduates of this school will be young men who have sorely needed assistance; but still, human nature being what it is, there will be a large proportion who will take advantage of the conditions of the offer, who under other circumstances would have pursued a more independent course. We have no reason to believe that this action of the Louisville Medical College will be maintained by the moral sentiment of the profession, and we have every reason to hope that the press, and the profession generally will so emphatically disapprove their peculiar method of obtaining students that they will be forced to discontinue efforts that have a direct tendency to bring into disrepute institutions of medical learning. L.

THE FUNCTIONS OF THE BRAIN.

We shall not soon be done learning the physiology of the brain. Does each convolution of the brain preside over certain definite physiological functions? This has been a mooted question for a century, and is still pertinent and in order.

Less than a year ago Dr. Ferrier, of King's College, London, commenced and conducted a series of ingenious experiments to settle this question. His subjects were pigs and rabbits, of which he removed a portion of the cranium and membranes, and then stimulated the convolutions by means of electrodes. These experiments led Dr. Ferrier to an affirmative answer, at least so far as physical phenomena were produced.

More recently, Dr. Eugene Dupuy, a physiologist of Paris, has repeated experiments similar to those made by Dr. Ferrier, but with dissimilar results and conclusions. Ferrier found that a stimulus applied to the superior external convolutions of the brain produced movements of the animals paws; to the mid-front region, contraction of the eye-lids; to the parietal region, movement of the ear; to the lower frontal and orbital regions, movements of the tongue.

Dupuy, on the other hand, found that when the electrodes were applied to any part so as to produce but slight stimulation, movements of the fore paw on the opposite side were produced, but if the degree of stimulation was increased, then all the muscles on that side were put in motion.

Suspecting that the electrical stimulation might have been diffused through the entire hemisphere, so as to effect the base of the brain, this experimenter removed one-half of the cranium of a dog, and touched the posterior extremity of the hemisphere with the nerve of an insulated galvaniscopic frog. He then applied the electrodes to the front of the hemisphere, and movements as before occurred of the opposite forepaw: at the same time the legs of the frog were spasmodically contracted.

Here, then, are two able physiologists experimenting in the same way, and arriving at entirely different conclusions. So that the question stands before physiologists of to-day as it did between Spuzheim and the Schools; the truth is still *incognito*, more expert testimony is required. Huxley, I believe, affirms; Carpenter rather denies. Where are Brown-Sequard, Draper and Flint? The evidences, to our mind, militate for the affirmative. Every truth in science has for a time appeared to be unreasonable, but as we move on aboriginal conceptions prove to be profoundly absurd. Before the dawn of physiology the body was peopled with many intelligible forms, as the "vital power," the aura, and numerous spirits. In the morn of pathological research, the corporeal frame was peopled with many devils; and in the minds of the Pagans many gods peopled Olympus. C.

WE are obliged to the courteous editor of the *Virginia Medical Monthly* for his complimentary notice of the RECORD. We but echo the sentiments of the whole medical press, when we say that his journal is the best that has ever come to us from Virginia, and equal in the variety and interest of its contents to any in America.

WE were misinformed when we stated in our last issue that the St. Luke's Hospital was no longer under the management of the Sisterhood of the Good Shepherd; on the contrary, they will continue to exercise full control over that institution.

OUR friend and colleague, Dr. Chas. A. Todd, has retired from the editorial staff of this journal.

MANY interesting reviews have been crowded out of this issue.

Drs. Mullen and Luck are authorized to solicit subscription for the RECORD.

Book Notices and Reviews.

SEVENTH ANNUAL REPORT OF THE BOARD OF HEALTH OF THE CITY OF ST. LOUIS.

We have received the Seventh Annual Report of the Board of Health, for the year 1873. The Board of Health is constituted by the Mayor, who is *ex officio* chairman, one representative from the City Council, one from the Board of Police Commissioners, and two members of the medical profession, thus representing every interest of the city. If we remember aright there was a provision in the new city charter abolishing the present system and requiring the appointment of a Health Commissioner, who was to be a non-medical man; but the measure was one of so evident a political nature, that we believe the measure was defeated, at least we have heard nothing further of it. The members of the present Board are: Hon. Joseph Brown, Hon. M. Madigan, D. H. Armstrong, Dr. A. P. Lankford and Dr. E. H. Gregory. The Report is full of interesting information on the sanitary condition of the city during the last year, and we will take the liberty of presenting an abstract of its contents.

Dr. Dudley, Health Officer, says that he "feels gratified that, in submitting this report there is good reason for general satisfaction with the sanitary condition of the city during the past year."

"The total number of deaths during the year was eight thousand five hundred and fifty-one (8,551), an increase of only five hundred and four over the year previous, notwithstanding the prevalence of an epidemic of small-pox in the first half of the year, and the presence in the city during the year of cerebro-spinal-meningitis and cholera and cholera morbus to an unusual and alarming extent. These extraordinary visitations of disease, alone, added to our mortality list 1,802 deaths; yet the death rate is only about 19 per cent. per 1,000 inhabitants, upon a basis of an estimated population of four hundred and fifty thousand (450,000). This includes the Thirteenth ward, then a part of the city, and from which the deaths were registered."

Small pox prevailed in the city to a considerable extent, and for the year ending December 31, there were 821 deaths; the larger proportion of cases occurring during the winter months. The cholera made its appearance in the city about the middle of June, and for a time was quite violent in the lower wards; but the energetic measures taken by the Board seemed to have proved very efficacious in staying its further ravages. Dr. Dudley considers that its presence in the localities where it was most prevalent, due to defective sewerage, the dampness of the soil, and the overcrowding of the people in tenement houses, without the necessary attention to the common laws of hygiene.

The Health Officer offers some most practical remarks upon the Social Evil question, and as he has had unusual opportunities for observation, we will quote them *in extenso:*

"During the past year the social ordinances were in force, based upon the authority of the city charter to regulate bawdy houses, and so continued until late in the session of the legislature in this year, when that clause of the charter was repealed.

Under the enforcement of these ordinances, prostitution had greatly diminished in the city, and the public decorum of this class of women had undergone a marked and perceptible improvement. These women, as a rule, up to, and even during the agitation of the question of the repeal of the law, yielded, willing obedience to it, and were well satisfied with the benefits which had already inured to their own class from it.

The advantages derived from a well appointed hospital and a home for these unfortunate women, when sick or diseased, from any cause whatever—the purchase and construction of which they had each contributed to, was fully appreciated by them. Although

these women well knew that they were violators of the law, yet by obedience to the social evil ordinances, they also knew that when sick and afflicted, they did not become paupers and a public charge upon the tax payers of the city, and this was a stimulant to their pride and independence, which aided greatly in restoring many of them to a better course of life. From the number who entered the Social Evil Hospital and were there reformed, and the evidences of reformation given generally among the inmates, it is not an unreasonable estimate to say that every indication was that one-third of those sent to the hospital would have been reformed."

"Venereal disease had greatly diminished under the operation of the law—abundant evidence of this can be produced—but it is sufficiently apparent to the most obtuse mind, upon the reflection that from fifty to sixty diseased women, and, indeed, every woman among those registered, who upon weekly examinations was found diseased, were constantly kept withdrawn from intercourse with the community and were lodged in the hospital, there to remain until cured. It is unnecessary to adduce arguments or multiply reasons to substantiate the great sanitary benefits resulting from the operation of this law, to this class of women and the community at large; every intelligent person in this community who has studied and observed the effects of this enforcement, if done with a mind free from moral prejudices and selfish motives, could not fail to discover its sanitary advantages. By the report of the Superintendent of the Social Evil Hospital it will be seen, that during the past eleven months there has been treated in that institution 405 patients, a daily average of 55.39 from which, and the further examination of the report some idea of the sanitary benefits of the law may be gained, if it is borne in mind the almost indefinite number of persons who might have been infected by these diseased women, if unrestrained in their intercourse with the community."

"The repeal of the law, before its practical results for good or evil, in reformation, could be clearly established by legislation, was a hasty and inconsiderate action, for which none of those who persistently urged it have suggested or given a plan or substitute worthy a moment's consideration of an intelligent community."

"The new and magnificent House of Industry, in the operation of which the chief work of reformation was contemplated, had not yet been completed, although but a few months' work was left to be done when the law was repealed."

"The enforcement and carrying out the practical operation of this law, in all its bearings, was self-sustaining—now under the operation of a so-called compromise law, which is the legitimate offspring of the agitation and repeal of the original law—a heavy expense is placed upon the already heavy burdened tax-payers of the city, for keeping up the House of Industry—estimated for its completion and running expenses, for the first year, at $40,000 or more, without any authority of law whatever to reach or control the conduct of class of women, whether diseased or healthy."

As before stated the number of deaths during the year from all causes number 8,551, and the following table shows the ages at which the deaths occurred:

AGES.

Under 5 years	4,014
From 5 to 10 years	452
From 10 to 20 years	498
From 20 to 30 years	912
From 30 to 40 years	852
From 40 to 50 years	689
From 50 to 60 years	520
From 60 to 70 years	324
From 70 to 80 years	187
Fram 80 to 90 years	82
From 90 to 100 years	21
Over 100 years	4
Total	8,551

Next follows the Report of Dr. Dean, City Chemist, which is the most thorough and exhaustive of the kind that we remember to have seen. Lack of space forbids us to quote as largely as we would wish from this learned and interesting Report, but we cannot refrain from embodying in this review the result of one, at least, of his original researches, which is as follows:

"In the spring of 1871, while demonstrating the anatomy of the fly, I found a small nematoid larva, which I supposed came from the thorax; but an exaxination of the few flies I could then find (fifteen to twenty) giving only negative results, I gave up the investigation, concluding the case was an exceptional one. Recently my assistant, while examining the head of a fly, informed me that he had found a trichina crawling from the crushed mass! I immediately recognized my old acquaintance, and my first decapitation was rewarded by the sight of twelve worms, 2.286 Mm. long and .057 Mm. in diameter, squirming and gliding from the crushed head. A further examination of a hundred gave twenty infected. The worms appeared to be mainly, if not entirely, in the proboscis, writhing backward and forth in the fleshy lobes and middle segment to the pharynx. A further examination gives 32 per cent. infected in the proboscides alone. In the meat-fly, *Musca* (*Calliphora*) *vomitoria*, and in the comparatively few specimens obtained of *Stomoxys calcitrans*, which bites so severely, and is found in our houses with other flies, none

were seen. They are larger than the coiled larvæ in the intestinal wall of the chicken, more nearly resembling in size the mature female trichina. It is probable these immature worms, with their hosts, the flies, are swallowed by birds or other small animals, or perhaps by larger animals, or man, in which or in whom the complete development goes on. The ease with which they pass out of the oral orifice of the fly, when the prboscis is removed, suggests that they may be disseminated by their voluntary migration to the surface of food licked by the flies. The number of eggs scattered somewhere, from which so many flies suck up one to several with the juice of their pulpy food, must be simply enormous, if, as is likely, they obtain the parasites in this way. Flies are largely hatched in manure about stables. As my office is near a large stable, and the dung of horses contains myriads of eggs from worms in their alimentary canal, I suspected the infection of flies was local, as it may yet prove. But an examination of flies found a considerable distance from stables, results as with the others; and a close examination discovers no ova or shells of ova in the proboscis of the fly, no ova, embryos, or larvæ in the fly-maggots, and nothing corresponding to these worms, free or in the many ova in the dung."

"This discovery may turn out to be of small account, or it may be of greater value, either of a direct sanitary character or as aiding in clearing up the history of another species of nematoid. We have been accustomed to look upon house-flies as useful scavengers; but besides their begrimming everything with which they come in contact, and their persistence in tormenting man and animals by sucking up the exhalations from the pores of their skin, they may prove to be a nuisance on a much larger scale. It were well they were found to bear only their own death-warrant."

THE DAIRY INSPECTOR reports, that although some improvement has been effected in the condition of the dairies, the law is so inoperative and defective that no very material sanitary progress can be made until measures are instituted to secure more authoritative legislation.

THE RESIDENT PHYSICIAN of the City Hospital reports 3,808 patients treated in that institution for the year ending April 30th, 1874. Total number of deaths during this time, 428; of these 117 died within 24 hours after admission, and 60 within 48 hours after admission; 32 of the deaths were Coroner's cases, whilst 64 died from consumption. There were also admitted 183 cases of cholera, and 5 cases of yellow fever.

A very material change has been made in the management of the City Hospital within the past few months—a change which considered in the light of experience as furnished by the hospitals of the East, cannot but prove beneficial. The office of resident physician has been abolished, and the medical control has been given over to a corps of consulting physicians and surgeons, assisted by eight house physicians. The members of the consulting staff are selected for their especial fitness to the departments assigned them, and the house staff is chosen after a rigid competitive examination. This plan has worked most satisfactorily since its inauguration, and we hope the Board of Health will have the moral courage to maintain their very wise action, notwithstanding the grumblings of "sore headed" doctors, and the brainless tirades of newspaper scribblers.

THE CITY DISPENSARY PHYSICIAN treated 33,431 cases during the last year ending April 30, 1874.

THERE were 2,431 patients admitted to the Quarantine hospital for the same period; whole number of deaths 149; percentage of deaths, 5.54. The death rate is quite small as compared with other years, when we remember that chronic cases of every sort are sent to this institution; in fact, many are sent there to die.

We have not space to notice in detail any of the other features in this interesting report, which we regret, as there are many matters deserving of mention. In reading over this report there is one thing which strikes us very prominently, viz: the number of hospitals connected directly or indirectly with the Health Board, and the advantages which such institutions as the City, the Quarantine, the Female, the St. John's and the Sisters' Hospitals afford for clinical instruction to medical students; indeed, St. Louis, with its long array of public and private medical charities offers unsurpassed facilities for medical teaching.

"MATERIA MEDICA" for the use of Students. By John B. Biddle, M. D., Professor of Materia Medica and Therapeutics in the Jefferson Medical College, etc., etc. Sixth Edition Revised and Enlarged, with Illustrations, Philadelphia, Lindsay & Blakiston, 1874. For sale by Gray, Baker & Co.

This work of Prof. Biddle's, we consider one of the best, if not the best text book for students extant, and its universal appreciation has been shown by the fact that it has now attained its sixth edition, although a little more than a year has elapsed since the publication of the fifth.

The author states that he has bestowed unusual care upon the preparation of the present edition, having recast and remodeled many of the articles; the new method of chemical notation has also been adopted. We find an ex-

cellent wood-cut of the pneumatic aspirator, together with explicit directions for its use, The book is presented in Messrs Lindsay & Blakiston's usual elegant style.

"Essays on Conservative Medicine and Kindred Topics." By Austin Flint, M. D. Philadelphia, Henry C. Lea, 1874.

Anything from the pen of Dr. Flint will be read with avidity, and these masterly essays form no exception to the rule. As most of the papers have been already pubiished in various periodicals, we will offer no review, but simply advise every one to read them, being certain that they will be well repaid in the perusal.

Miscellaneous Notes.

Laws Regulating the Practice of Medicine in Missouri.—The following are the laws enacted by the legislature at its last session, for the purpose of regulating the practice of medicine in Missouri:

Section 1. It shall hereafter be unlawful for any person to practice medicine or surgery in this state, who shall not have first received the degree of doctor of medicine from some medical college or university, duly established under and by virtue of the laws of the state or county [country] in which the same is situated.

Sec. 2. Every person hereafter wishing to commence the practice of medicine or surgery in this state, shall file a copy of his or her diploma in the office of the county clerk of the county in which he or she resides, which copy shall be sworn to and subscribed by the party filing the same, and thereupon the said clerk shall enter the name of such party, the date of filing the same, the date of his or her diploma, and the name and location of the school or university granting the same, in a book kept by him for that purpose, to be called the roll of physicians and surgeons, for which he shall receive the sum of one dollar, the same to be paid by the applicants.

Sec. 3. All persons now practicing medicine or surgery in this state, or who shall commence the practice before the first day of September, in the [year] 1874, shall register their names in the office of the county clerk of the county in which they reside, but they shall not be required to file any copy of their diplomas.

Sec. 4. Every person who shall practice or attempt to practice medicine or surgery in this state, without first having complied with the provisions of this act, shall be deemed guilty of a misdemeanor, and upon conviction shall be fined not less than twenty-five nor more than five hundred dollars, and the fact that any such person has not filed such copy of his or her diploma, or registered themselves, as herein required, shall be sufficient defense to any action brought by him [or her] for his or her services rendered or medicine furnished as a physician or surgeon, during the time he or she may have failed to comply with the provisions of this act.

Sec. 5. Certified copies from the roll of physicians and surgeons in any county, certified under the hand of the county clerk and the seal of said clerk, as well as duly certified copies of any diploma, filed under the provisions of this act, shall be received in evidence in all counties of this state in all causes arising under provisions of this act.

Sec. 6. This act shall not be constructed as to prohibit any woman practicing midwifery and securing pay therefor without such registration or diploma.

Sec. 7. This act to take effect and be in force from and after the first day of September, in the year one thousand eight hundred and seventy-four.

IN MEMORIAM.

AN APPEAL TO THE MEDICAL PROFESSION OF THE WORLD.

It is contemplated to erect a memorial statue in honor of Ephriam McDowell, M.D., of Kentucky, the Founder of Ovariotomy. The idea having originated in Danville, where the first operation was performed, was adopted by the Boyle County Medical Society, approved by the Kentucky State Medical Society, and earnestly endorsed by the American Medical Association, at its last meeting in Detroit.

Ovariotomy has outlived all opposition, and through the record of its success, has, by common consent, attained a position in legitimate surgery. Nations formerly arrayed against it are now claiming for themselves the honor of privity. This honor belongs to America.

In the origination and the development of new ideas, the pioneer has often to suffer odium and abuse, and rarely lives to enjoy the fruition of a great discovery. This was peculiarly the case with McDowell.

A modest, unassuming man, of large intellect, rare judgment, strong convictions of duty and possessing a proper ambition to advance the science of his profession and meet the claims of humanity, he accomplished an act in 1809, in the western wilds of Kentucky, which was not only discredited but denounced by the whole medical world. With a consciousness of right, unsupported and alone, and in defiance of professional obliquy, he

performed operation after operation with astonishing success, and snatched from the grave the victims of a disease until then acknowledged to be incurable.

Standing firm, encouraged by results, this undaunted surgeon never faltered, although he had not as yet the prestige of a reputation nor the approving counsel of a single noted surgeon. All honor, then, to Ephriam McDowell, of Kentucky.

Now that Ovariotomy has been justly established throughout the world as one of the greatest triumphs in surgery, it is eminently proper to inaugurate a suitable memorial, expressive of the high appreciation of his character, of the world-wide benefits of his discovery, and a due acknowledgment of the gratitude of every nation.

America should not stand alone in this work of love and duty. Every country on the face of the earth is equally the recipient of the blessings of this discovery, and is under a moral obligation to send offerings for McDowell's shrine.

And woman, who is utterly saved by Ovariotomy from endless suffering and impending death, should herself hasten to aid in erecting and embellishing this memorial statue by her own delicate and grateful hands. May it be even so. How beautiful and expressive would be such an act. The offerings of her new existence laid upon the tomb of her benefactor.

This appeal, therefore, for aid, is first made to the women of the world who have been rescued by Ovariotomy; next to the members of the medical profession whose resources have been so greatly increased; lastly, to all who appreciate this advance in surgery, and regard Ephriam McDowell, the Father of Ovariotomy, as worthy of the gratitude of all the human race.

All contributions to the Memorial Fund should be sent by money order or registered letter, addressed to Dr. James M. Keller, No. 58 Green street, Louisville, Kentucky, who has been appointed Secretary and Treasurer by the Committee, and who will promptly send postal card receipts for all moneys received, and make, through leading medical journals, regular published lists of the names of the contributors.

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HOME NEWS.

Practical Cremation. We have had a very disagreeable and disgusting sensation within the last few weeks; a sensation which has opened our eyes to the existence of the most loathsome crimes in our very midst. Madame Fortmeyer a midwife, was arrested by the police, for committing an abortion upon a young mulatto girl who died in consequence of the operation. Upon the coroners inquest, among other horrible details, it was proved that Madame Fortmeyer not only unscrupulously resorted to this infamous business as a means of livelihood, but that she had a unique and original method of ridding herself of all tell-tale evidence. A favorite aphorism with her was, "*ashes tell no tales.*"

This very pleasant and amiable person indulged in the pastime of *burning* the results of conception; and it was shown at the inquest, that she had *roasted* in her stove the bodies of living, breathing infants. Surely this intelligent lady should be rewarded for inaugurating in this country, a practical demonstration of incremation; but we are afraid —notwithstanding the efforts of humane lawyers in her behalf—that she will be rewarded quite otherwise.

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Original Lectures

THE PATHOLOGY OF PULMONARY PHTHISIS.

A Clinical Lecture by P. Gervais Robinson, M. D., Professor of Clinical Medicine, etc., Missouri Medical College.

GENTLEMEN:—So much, then, for the distinguishing features of the different forms of the formidable disease which goes under the general name consumption. It is not difficult, as you have seen, with practice and careful observation to make yourselves familiar with its clinical manifestations, or to recognize with certainty, by physical explorations, the actual progress and stage of any case of phthisis; but the same satisfaction is not afforded in the further investigation (which we must all pursue, if we desire to base our treatment upon any but empirical grounds) looking to a determination of the pathological cause and the morbid changes which constitute tubercular phthisis. Whether tubercle is a deposit like pus, etc., or a growth like cancer, etc; whether it is to be regarded with Lænnec as a non-inflammatory accidental production, or with Andral, Cruveilhier and others as "inflammatory products," or with Williams as a result of a modification of the ordinary nutritive process, the product of degraded nutrition, or with Carswell as a secretion *sui generis*—are questions which yet remain to be determined; and the theory which each one of you adopts must indicate to him the line of treatment to be pursued consistent with the opinion entertained.

A carefel study of the causes of diseases is necessary as well to their treatment as to a recognition of their exact nature. The development of no disease can be effected by the operation of a single cause, whether external or internal, but must result from the co-operation of two or more factors; for in the production of disease, just as in other matters, the law of duality and intimate co-operative action is maintained, and a single unaided cause is impotent to effect that morbid state which we call disease. These, at least two, causes required to produce any given form of disease are essentially differert in their nature; the one being external, the other internal, in relation to the body acted upon.

As to the external causes, we say that they may be either speeific or general; specific as in variola, rubeola, cholera, etc.; in which cases we know very little as to the *real nature* of the *materies morbi*, except that they probably consist in a peculiar animal poison. Some of their characteristics are better understood; as, for instance, the transportability and direct contagiousness of the exanthemata, or, on the other hand, the localization of the malarial poison, and its probable dependence upon some definite condition of the atmosphere. We are enabled to recognize and identify these specific causes of disease only by their effects upon the human system; we know nothing of their *essential* nature and composition, notwithstanding the great advance of science and the progressive strides of the microscopist and chemist. Again, the external causes of disease may be non-specific in their character, that is, not owing their deleterious effects upon the system to any special form of poison, and not producing a specific or uniform type of disease, but, on the other hand, giving rise, when their influence is exerted upon the body, to a variety of maladies, the types of which depend upon the combinations taking place in the organism itself with the peculiar constitutional conditions of the individuals affected, with what, in other words, we term the internal causes of disease.

These non-specific external causes are, for the most part, simple and easily understood; as, for example, extremes of temperature, great heat or cold; sudden atmospheric changes as from heat to cold, or the opposite, so that one may quite as often be said to "take hot" as to "take cold." In this category we may place, too, all the consequences of imprudences and irregularities of diet, excesses which might have been avoided, and deficiences in quantity and quality unavoidable and dependent upon the inexorable laws of necessity. To dietetic causes by far the great majority of diseases may be said to owe their origin.

Now as the external causes of disease may be specific and non-specific, so also may be the internal; hence we have certain well-known "diatheses" or constitutional states, where a special form of disease is always developed whenever these "diatheses" are brought under the influence of external causes, which so enter into combination with them, become the excitors of morbid action, and the result is the more or less perfect development of a specific malady. Under the head of specific internal causes come the "scrofulous," the tubercular, the "gouty," the "rheumatic," "diatheses," etc. Again, there may be non-specific internal causes, as those dependent upon general debility of the whole system, upon deformities, upon local arrests or imperfection of development, or upon certain functional derangements of particular and important organs. These disturbances in each case give direction to the train of morbid acts and mark the type of the disease. So we see of a large number of persons subjected to the inclemencies of the weather, some will suffer from affections of the respiratory organs, while others will be attacked with diarrhœa or dysentery; and further, in those among the number possessing a peculiar diathesis, a train of morbid acts will most probably be excited distinctive of a special and correspond-

ing form of disease, as scrofula, tuberculosis, gout, etc.

My object in bringing forward these well-known facts, is to direct your attention to the all-important consideration of the *mutual* influence for evil of the two sets of causes, the internal and external; the absolute necessity of their co-operation in the production of disease. It is true that in the study of causation the success attained has been by no means commensurate with the amount of time and labor expended; and while we have failed perhaps to acquire a knowledge of the true *nature* of specific poisons which produce disease in the animal economy, yet to-day there are few of these poisons about which we do not kuow much more than we did fifty or even ten or twenty years ago. Thus we are more familiar with their favorite localities, with their geographical distribution, with their degrees of communicability, and with many of the conditions necessary or at least favorable to their propagation and development. With a knowledge of these conditions we are able to make the first step towards the amelioration of our race and the prevention of suffering; which step consists in the avoidance of those conditions which are calculated either to originate disease or to excite morbid action where the predisposition exists.

These principles of causation apply, then, with equal force to the disease we are studying as to any other. The necessity for the co-operation of several factors is as apparent in the generation of a case of phthisis as it is in that of any other malady. We must have, in the first place, a peculiar constitutional condition resident within the organism, an internal specific cause in all those subjects in whom we look at some time during their life for the local expression of disease in the lungs, for the development of tubercles. This condition is commonly termed the scrofulous, strumous, or tuberculous diathesis.

This constitutional state however, admitting the stated principles of causation, is not alone adequate to the production of the destructive changes within the lungs or other localities, but must first be brought under the fructifying influence, so to speak, of some external and non-specific cause. The external causes, which we may likewise call the exciting, are numerous, but simple in their nature and readily understood. They embrace all those conditions and accidents which are generally admitted to be antagonistic to the laws of hygiene—such as undue exposure to extremes of temperature and inclemencies of weather, with insufficiency of clothing, imprudence in diet, bad and insufficient food, foul air, protracted mental anxiety, etc.

Where the peculiar constitutional state, the "diathesis," exists, we learn to recognize it by peculiarities of physical conformation in the individual. Says Watson:

"The persons in whom scrofulous disease "is *most* apt to declare itself, are marked dur-"ing childhood by pale and pasty complex-"ions, large heads, narrow chests, protuber-"ant bellies, soft and flabby muscles, and a "languid and feeble circulation. They pre-"sent many of the features belonging to that "pattern of body which is called the leuco-"phlegmatic. But the strumous disposition "very often, indeed, accompanies a variety of "the sanguine temperament also; and is in-"dicated by light or red hair, gray or blue "eyes with large and sluggish pupils and "long silky lashes, a fair transparent brillian-"cy of skin, and rosey cheeks. This red "color, which is well-defined in general, is "easily changed, however, to purple or livid; "the skin is thin and readily irritated; the "sclerotic has often a peculiar pearly lustre: "and the extremities are subject to chilblains. "Such children are, many of them, extremely "clever and ready of apprehension, of eager "tempers and warm affections, lively, ardent, "imaginative, and susceptible. This preco-"city of mind and intellect, while it delights "the fondness of the parent, awakens the fears "of the far-seeing physician.

A few years' experience and careful observation will show you how faithful and accurate is this skillfully drawn picture of the subjects of this "diathesis."

Next, this "diathesis" is transmissable from parent to offspring,—is, in other words, hereditary, and at times so strongly *impregnated* (?) is the blood of a particular family that scarcely any individual member or generation escapes the influence; at others the constitutional vice is manifested only by occasional outbursts, or else one or even two generations may go unharmed, while the disease is transmitted to those beyond. So far, then, we have strong evidence for the belief that there is a specific residual element of the disease somewhere in the organism of the subjects of phthisis; that this element lies latent and harmless, unproductive, like the unplanted seeds, until brought under those external influences, some of which we have enumerated by which combination of factors we have the development of the constitutional disease we call "phthisis," with a characteristic local product which we term tubercle.

This naturally brings us to the question, what is tubercle? Is tubercle the disease itself or only the product of the disease? Does tubercular matter contain the true specific element of the malady, or is it a simple product, the result of tissue-change and destruction, like pus?

Does tubercular matter contain the germs of phthisis, whose specificity, like that of small-pox, vaccine, or syphilis, can be demonstrated by the successful inoculation of their respective products?

These are questions of vital importance.

and are to-day engaging the attention and are subjected to the investigation of a large number of the best thinkers in the profession.

From a very remote period there has existed an indefinite suspicion, even among the profession, as to the contageousness of phthisis; and we often hear of persons of previous good health who have sickened and died of pulmonary consumption, apparently contracted from close attention upon those suffering from the disease, or from the occupation of the same bed. In the absence of certainty as to the absolute transmissibility of phthisis by contact or proximity, we may wisely act upon the reasonable presumption that the atmosphere, often necessarily confined within the chamber of a consumptive, must, to a certain extent, become contaminated by the exhalations from the lungs, consisting of air, holding in solution, as it were, or intimately mixed with, the minute particles and gases of the decomposing tissues, and so advise the attendants and relations against all unnecessary subjection to such noxious influences.

Several experimenters of ability are now making efforts to decide the question of inoculability of tubercle, which, it is to be hoped, will settle in time the specificity or not of the tuberculous matter. The experiments made thus far have thrown very little light upon the obscurity in which the subject is veiled. It is true that a product, apparently identical with the matter of tubercle, has been discovered in the lungs and other organs of animals which have been inoculated with particles of tubercle, or even with the sputa of phthisical subjects; but the conclusions drawn from this observation have been modified by the fact that the introduction of various foreign bodies under the skin, and even into the abdominal cavity, of animals has given rise to the same morbid action and the same products. Cohnheim and Frænkel have examined this subject with great care. They have found that in Guinea pigs—the animals experimented on by them—the inoculation of tubercular matter from the human subject was followed by the formation of miliary tubercle. Various other substances, however, were found to produce the same results, where the animals did not die immediately from the effects of the inflammation excited by the irritation of the foreign bodies introduced. Thus pieces of healthy organs, cancer, blotting paper, charpie, and caoutchouc, were introduced into the peritoneal cavity, and always produced the same result. This process generally gave rise to peritonitis, from which a large portion of the animals died in a few days. When the animals survived, the peritonitis became circumscribed, and a "tumor with a capsular envelope was formed. When foreign substances, such as charpie, gutta percha, etc., were used, they were to be found within the capsule; but when organic animal substances, such as cancer, etc., were introduced, no trace of them could be discovered by the most careful and minute examination. The cause of the phenomena produced in these cases, according to these authors, must be looked for elsewhere than in the result of the direct systemic infection, which obviously cannot be the case in those experiments were such foreign bodies as caoutchouc, paper, etc., were introduced. It is held by these authors that the really effective agent is the dead and degenerated pus, which is found in every instance, as the result of the reactive inflammation after the introduction of the foreign bodies. This pus would seem to be the true exciting cause of the subsequent pathological changes, being rendered active by absorption into the economy."*

It appears to me that there is to be found in these experiments, made solely upon a low order of animals, great danger of false conclusions, from the assumption of a community of impressibility to the same morbific influences as existing between these animals and man. The experiments, at best, only go to prove that any irritating substance *whatever* is sufficient to bring about a constitutional state, one of the results of which is a local product, identical, to all appearances, with the so-called tubercular matter. Dr. Sanderson has lately given an account of his experiments on the inoculability of tubercle, and his conclusions drawn therefrom. He maintains that the disease thus produced may be regarded as an overgrowth, in the affected part of those structural elements which they have in common with the pulp contained in the alveoli of the lymphatic glands,—that any sufficient irritation of the subcutaneous cellular tissue, or even external injury, produced the same results in rodents; that, further, it could no longer be held that the products of tuberculous inoculation were dependent upon any specific property possessed by the inoculated material. The new growth he holds to be identical with the alveolar pulp, what he calls the "adenoid tissue" of the lymphatic glands; that tuberculous growths very commonly possess the character of this tissue; and that normal tissues of the adenoid type are more liable than others to become the seat of tuberculous processes. In the lymphatic glands, spleen, etc., the adenoid tissue constitutes the greater portions of these organs. Dr. Sanderson has found it in abundance, in scattered masses, in the mucous and serous membranes. It has likewise been noticed in the peritoneum, and beneath the mucous membrane in the fauces and pharynx, and throughout the small intestines, by other observers. Dr. Sanderson detects it throughout the lung, in the neighborhood of the bronchi, in connection with the capillaries and lymphatics, and in other situations. Between

* Braithwaite's Retrospect, American Reprint, January, 1871, p. 78.

the portal vein and bile ducts in the liver are also found masses of adenoid tissue. It is supposed that these adenoid masses are concerned in the elaboration of blood corpuscles, and that they possess absorbent powers, The great point of importance is that they are found in those localities where tubercle is deposited, and that they are in intimate relation with the lymphatic system. Tubercles originate in this adenoid tissue when the disease is artificially produced. The inoculated material is taken up and disseminated by the lymphatics, and by them conveyed to the glands; from these carried into the general system by the arteries, and so reaches, finally, the glands of the various organs; these undergo hypertrophy, become indurated, and may further undergo caseous degeneration.*

It has always occurred to me that it is to the lymphatic glands and vessels we must look for a true explanation of the genesis of tubercular phthisis; and it is to be observed that too little importance has been attached to this system of vessels and glands, which performs a *role* scarcely second to that of the heart and arteries.

Besides the lacteal glands of the intestinal canal, and such as have been for so long regarded as lymphatics proper, as in the groin, flexures of the joints generally, and about the neck, many other glands are now held, by the best authorities, to present the same structure and to be endowed with the same function in the economy. Virchow regards the tonsils, the follicles at the root of the tongue, Peyer's glands, as well as the solitary intestinal follicles, thymus gland and spleen, as coming under the head of lymphatic glands. And we have seen how Sanderson claims that masses of adenoid tissue, in structure and function identical with these glands, exist, in varying size, in many parts and organs of the body.

It is now admitted that these organs are concerned in the elimination of white blood corpuscles, which undergo regular transformation into or become the generators of the red corpuscles; the supply being in the healthy state appropriate to the demands of the system, while the proportion between the white and red corpuscles is maintained for the most part at a fixed rate. If the activity of these glands or any considerable portion of them be increased, we have a proportionate increase in the supply of colorless cells. This increased action may be normal and temporary, as is the case with the lacteal glands after digestion has advanced to a certain point; on the other hand, the increased action may be abnormal and permanent, indicating a pathological state of the lymphatic glands. The temporary change in the blood has been termed leucocytosis; the permanent, leukaemia.

* See *London Lancet*, Amer. Reprint, for Feb., 1870.

Bennett has done much to give prominence to the opinion, which is now very generally admitted to be a fact, that tubercular phthisis commences as a rule with dyspeptic symptoms, That is, if the history of any case be well made out, it will be found that the earliest phenomena were those dependent upon irregularities in the functions of the digestive organs. It will be found that the appetite of the patient has been capricious, morbid and irregular, often showing absolute distaste for those substances the most essential to the repair of tissue and the maintenance of life. Nature most probably instinctively rebels against those substances, which, while they are perhaps very essential to health, are difficult of digestion to this class of patients. So the assertion, that an aversion to oily or fatty substances most generally prevails in the strumous diathesis, is well borne out by observation.

May it not, then, be a reasonable hypothesis to suppose that the tubercular disease has its starting-point in the lymphatics of the intestinal tract? We have, perhaps, congenital weakness of the structures, follicles and lacteal glands, or else irritation and enlargement (hypertrophy) excited by improper aliments; the immediate consequence we may suppose to be the elimination of a superabundance of white corpuscles, which are themselves the unhealhty offspring of unhealthy parents; these are disseminated by the lymphatic vessels in the first place, and are finally poured into the geneal current of the circulation, through which they reach the lymphatic glands and adenoid tissue in various organs, when, by a peculial affiinty for the elements of these tissues, they excite a secondary irritation and enlargement of the glands so affected, which may end, as we know, in inflammation and suppuration, or caseous degeneration.

The deposit of tubercle within the lungs and other organs, which takes place so often after typhoid fever, would seem to offer a strong ground of argument in support of this explanation of the mode in which tubercle has its origin. We have here, in the first place, a diseased condition of Peyer's glands, a notable feature of the fever, which glands are now held to be lymphatic. These structures, whether they be in a state of simple hypertrophy, inflammation, or ulceration, may be regarded as points of inoculation, their vitiated contents being disseminated by the lymphatic vessels. emptied into the circulation, and so finally reaching analagous structures in the lungs and other organs, where secondary inflammation is excited, with like results of hypertrophy, enlargement and perhaps degeneration of the adenoid tissue. This view would seem to strengthen the analogy which is apparent between scrofula and tubercle, by some even held to be identical. In the scrofulous subject, affection of

the lymphatic glands, induration, enlargement, caseous degeneration, softening, and suppuration are the local manifestations that accompany the constitutional state which we term diathesis. This phase of the disease occurs as a rule in the young, while in those who have reached puberty or a more advanced age we have a transference of the local manifestations to another set of lymphatic structures, viz., those within the lungs, while the constitutional state remains indentical. Subjects of pulmonary tubercular disease die, then, from one of two causes, or from both combined: first, from a general impoverishment of the blood, dependent upon disease of the lymphatic glands, whereby unhealthy, imperfect blood-cells are thrown into the circulation; and, secondly, through the local injury and more or less destruction produced in the tissue of the lung, whereby its function is impaired and rendered inadequate to the proper oxydation of the blood.

We may regard, then, tubercle as a neoplasm formed within a certain class of tissues, out of certain elements proper to those tissues; which new formation reaches a certain degree of development, and may then remain indefinitely quiescent (crude tubercle), or may, (as is most commonly the case) undergo a certain retrograde process, degeneration, and purulent softening, involviug the surrounding tissues in destructive ulceration more or less extensive. Virchow is "of "opinion that a tubercle is a granule or a "knot, and that this knot constitutes a new "formation, and indeed one which from the "time of its earliest development is necessar-"ily of a cellular nature, and generally, just "like all other new formations, has its origin "in *connective tissue*, and which, when it has "reached a certain degree of development, "constitutes a minute knot within this tissue, "that when it is at the surface, projects in "the form of a little protuberance, and con-"sists throughout its whole mass, of small "uni- or multinuclear cells. What character-"izes this formation especially is its richness "in nuclei—sometimes twenty-four or thirty "in one cell. This structure, which in its "development is comparatively most nearly "related to pus, inasmuch as it has the small-"est nuclei and relatively the smallest cells, "is distinguished from all the more highly "organized forms of cancer, cancroid, and "sarcoma, by the circumstance that these con-"tain large, voluminous—nay, often gigantic "corpuscles, with highly developed nuclei, "and nucleoli Tubercle is always a pitiful "production, a new formation, from its very "outset miserable."

Virchow holds, then, that tubercle is a neoplasm, developed only in the connective tissue, wherever found; he is opposed to the opinion that tubercle is developed in the mucous membrane lining the alveoli, while Villemin and Lebert maintain that the tubercle is developed within as well as without the vescicles of the pulmonary structure. Virchow says, moreover, that tubercle always appears in the form of granules, "never attains any considerable size," and that "those which are "wont to be termed large tubercles, and at-"tain the size of a walnut, are not simple tu-"bercles, but a nest of them containing many "thousand tubercles; and that this nest en-"larges not by growth of the original granule, "but rather by the continual formation and "adjunction of new granules at its circum-"ference.

He concludes, therefore, that "whatever in "the course of tuberculosis does not appear "in the form of granules, is an inspissated "inflammatory product, and has at any rate no direct relation to tubercle; "and hence be-"lieves that Reinhart was wrong in his con-"clusion that "tuberculosis is nothing more "than one of the forms presented by inflam-"matory products when undergoing transfor-"mation, and especially that all tuberculous "matter is really inspissated pus."

If we accept the doctrines of Virchow, whose authority now stands high, and whose views coincide to a cerain extent with those expressed by Niemeyer in his recent work on the Practice of Medicine, we must admit a very important distinction between true turbercular deposit and that which is the result of an ordinary inflammatory prcess, whether commencing in the substance of the lung as pneumonia, or in the minute bronchial tubes, and involving the vesicles and connective tissue by extenston. Under favorable circumstances, the effusion which takes place during the course of a pneumonic inflainmation is reabsorbed, and, as we express it, resolution takes place; but under unfavorable conditions certain changes may take place so closely analagous to those metamorphoses which the true tubercular masses undergo, that it is scarcely possible to make a distinction, or to say which we have to deal with, if we confine our examinations simply to the morbid products of the disease. The history of such cases must be carefully studied and their clinical features closely observed; for, as Virchow has shown, ***cheesy metamorphosis***, though it be a regular termination of tubercle, does not characterize or separate this morbid product from several others, since pus and cancer, and the pneumonic exudation may each undergo the same metamorphosis. Examining the product of inflammation in this condition, it is impossible to say whether we have that or true tubercle to deal with. So, in like manner as in tubercle, the mass softens and involves the surrounding tissue in more or less extensive ulceration and destruction, with the establishment of vomicæ; but if the patient does not become tuberculous, of which, according to Niemeyer, there is great

danger, the prognosis is more favorable than in true tubercular phthisis. This form is held to constitute the tubercular infiltration of the older writers. And if these modern views are correct, a little reflection suffices to show us the importance of establishing a basis for differentiation in diagnosis and treatment.

Chronic catarrhal pneumonia is, according to Niemeyer, a common disease, and embraces the so-called cases of "tuberculous infiltration." The cells effused in this form of pneumonia show a great tendency to caseous degeneration, but oftener the cells are absorbed or undergo cretaceous transformation. For Niemeyer tuberculosis is a secondary affection resulting from caseous morbid products.

I am of opinion, then, that "*tubercular phthisis*" is a specific disease, and that there prevails a disposition or tendency to affection of a certain class of structures, the lymphatics, which undergo inflammation, hypertrophy, and degeneration, most generally those of the intestinal tract; that this tendency constitutes a constitutional vice, what we term a diathesis, and is a necessary factor, which, when combined with one or more external exciting causes, operates for tne production of the disease we call tubercular phthisis; and, moreover, that the deposit taking place in the lung is a *secondary affection* as the result of inoculation from the primary seats of morbid action located in some remote part or organ of the body.

We may regard "*tubercle*" simply as the *product* of a special diseased condition of a certain class of tissues, these undergoing overgrowth and degeneoation, and secondarily infecting the blood by furnishing to the circulation material improper and insufficient for the proper nourishment of the various parts of the body. It possesses probably no specific poisonous property, yet each tubercular mass becomes as it were a new focus for the further propagation of disease.

The microscopic examination of tubercle shows its constituent elements to be in appearance very similar if not identical with pus and lymph corpuscles; between these the impossibility of drawing a distinction, based solely upon the microscoplc character, is very generally admitted.

With this view of the genesis of tubercle and its mode of propagation, we must regard as dangerous to the health of those persons who possess the predisposition to consumption the existence of ulcerations or suppurating wounds upon any of the surfaces of the body, as they may possibly become the centers from which may radiate the vitiated material, which is sufficient, under the influence of the *predisposing etement*, to produce a morbid action in the lymphoid or adenoid tissues ending in the degenerated state we call tubercle.

It has been advanced, that the apparently trifling operation of vaccination is not attended to without danger, the danger probably dependent upon two conditions: first, the impurity or adulteration of the virus used, and, secondly, upon the condition of the subject at the moment of vaccination. The recent experiments in the artificial production of tuberculosis in animals would seem to give a color of truth to these suggestions.

My own experience has taught me that vaccination is not always unattended with danger. I have seen very nearly, if not quite, a hundred men in one regiment put simultaneously *hors de combat* in consequence of vaccination. Very few surgeons of the late civil war are not familiar with the fact. This accident occurred in the Confederate army at a time when the troops were in a very bad hygienic condition—badly clothed and wretchedly fed—scurvy, diarrhœa and dysentery prevailing. The virus with which those under my own care were vaccinated was procured from the Surgeon-General's office at Richmond. In most cases the product of the inoculation was simply an ulcer, and not a papule passing on to the ordinary veiscular and pustular stages. The ulcer gradually extended its area, becoming sometimes phagedenic and extensive, but most generally irregularly round and indolent, with a prominent and indurated border. In ten days or two weeks from the formation of this ulcer, there occurred in nearly all cases secondary affections of the lymphatic glands, and in by far the greater portion there was profuse suppuration, The glands most commonly affected were those of the inner side of the elbow on the arm opposite to the side vaccinated; next in frequency the axiliary glands; then those of the neck and groin. The abcesses were promptly opened, and the protiodide of mercury very generally administered internally. No fatal cases occurred in those under my care, though I knew of several deaths as a consequence of such inoculation.

We had no special reason to suspect tuberculosis in any of these cases, but our minds were not at that time drawn in that direction. Still had there been chest symptoms, they could hardly have escaped observation. The safety of these subjects lay, perhaps, in the free suppuration of the affected glands. There would seem to be more than a shadow of truth in the old and familiar theory, which held that the dispersion of inflamed and suppurating glands in scrofulous subjects, by the use of discutients, is dangerous, and that in all such cases the tendency to suppuration and the discharge of pus ought to be encouraged and promoted.

So much, then, for the origin of tubercle, which, though not containing within itself specific germs, as is the case in the matter of syphilis and variola, for example, may still be regarded as the *product* of a specific constitu-

tional state which under the influence of sufficient irritating or exciting causes leads to certain pathological changes in a certain set of organs and tissues.

Tubercle is not of long life; its tendency is to early decay and death. Up to a certain stage of existence it is well supplied with nutrient blood-vessels; but, as the mass grows larger and its component cells become more and more approximated, the vessels are compressed, their calibre obliterated, and the supply of blood cut off; so that this new morbid *growth (?)* may be said to strangle itself. Pathological experienee has abundantly shown that, under certain conditions, tubercular masses, having attained their limit of growth, may remain quiescent and harmless in the substance of the lung, like any other foreign body; more commonly, however, fatty degeneration of the mass takes place, beginning at the center and extending to the circumference, until the whole is more or less completely changed; the watery contents of the mass are now absorbed, drying takes place, and we have the cheesy metamorphosis" brought about; the mass then breaks up, softens, and is expectorated, leaving at its site a cavity, which may be more or less enlarged by secondary ulcerations of its walls.

CANCER.

CLINICAL LECTURE AT CITY HOSPITAL.

BY PROF. A. P. LANKFORD,

GENTLEMEN:

Amongst the keen, searching and exhaustive inquiries of the time in the realms of pathology and the clinical history of various diseases, none have commanded a more absorbing interest than those directed to the solving of the great problems connected with the nature and history of cancerous growths, (if they can be termed growths.) Influenced by the vague and undefined ideas of the existence of two great agencies operating on man, viz: the one a benign, constructive and reparative, while the other was malign, destructive and never tending to repair, but always to death: our fathers very naturally, after observing the course of cancerous formations designated them as "malignant" in contra-distinction to other unnatural and irregular productions and growths of the body, not inaptly termed in relation to the growth and nutrition of the subject, "benignant." It was, so to speak, another expression of the universal idea of the existence throughout nature, of two rival powers—the one ever aiming at the protection, sustenance, elevation and cure of man's moral and physical ailments, (a kind deity,) while the other just as unremittingly and perseveringly fought for his overthrow—his moral and physical death (the malicious demon)—and when we consider the destructive, unrelenting, unforgiving and malignant tendency of all forms of the so-called cancerous growths, how such a formation first attacks a part, infiltrating it with its lowly organized forms until these take the place of the natural tissues, and then, after having made itself complete master of the first point attacked, sending out its detachments in every direction, attacking distant parts, where the first process is always repeated until the entire system has been inundated and overcome. That it invariably destroys, first the part and then the system—sparing no tisue, organ or part in the individual, as it has but little respect for age, sex or social state amongst classes. Having once lodged in any part or organ of the body, it is never to be displaced, cured or changed, but always and inevitably runs the same course. And even the *manner* of destruction is uniform, its elements take the place of indigenous parts which disappear, and this material being short-lived, remaining in its early condition of development, is never elaborated into an enduring structure, but withers, sloughs, decomposes and crumbles away. And thus, piecemeal, would the body be disorganized, if every part was not connected with every other, but such organs and parts as are at least temporarily exempt, yet sympathize with the part diseased, and the products of the destructive process being carried into the circulation, poison fluids and solids, and the patient perishes, we say, under the influence of a "cancerous cachexia."

It is usual with "benign," or innocent tumors, to respect previous or adjoining natural structures (which they even imitate in their growth and nutrition) only interfering with them mechanically, i. e., pressing upon or displacing them, and they rarely exhibit any other hostility—and here is the grand boundary line, the broad distinction, and surely it is broad enough. The diagnosis made, and the fate of the individual is sealed.

With a clear and full knowledge of this, what is the duty of the physician, or, if you please, surgeon? Can he resort to internal medication with any rational expectation of success? If not, should he attempt to cut away and remove bodily, the diseased portion?

These are the questions that shall now engage our attention, leaving for some future occasion the discussion of the structure and other characteristics of cancer.

From what I have already premised, you will readily receive the statement that the most prominent characteristic of cancer is the clinical fact of recurrence. Though cut out or destroyed by internal change, it returns. And if it do not return in the part, it nevertheless resumes its growth, as if it had not been cut out, in other and distant organs of the body.

The varieties of eancer most frequent are,

in my opinion, those denominated epithelioma and scirrhus. If we select scirrhus as the typical form, and study it clinically, we may derive some rules of practice, which, if not absolutely correct, will yet be to the practitioner a safe guide in most cases.

Its common site is in the mammary gland of the female, and it appears to be hereditary. A woman observes a hard nodule in the gland which is at first movable, and not very painful. As it increases in size it becomes the seat of sharp, darting, pricking pains, and is soon observed to be adherent to the surrounding tissues, which it is drawing into its own substance, and compressing within less than the natural space. And now the difference between this affection and a tumor begins to be already marked. The firm hold which it has taken on all adjoining, movable structures, makes it movable only *with* them, while the tumour should move *amongst* them. As the sub-cutaneous connective tissue fibres are involved and drawn down to the tumour, they pull upon tho skin and cause a dimpling or pitting—the milk ducts being caught in the same manner, pull upon the nipple and retract it, and finally the sub-mammany tissues fare the same way, and the affected breast no longer slides over the pectoral muscle—what was formerly a mammary gland has now become a dense, irregular, nodulaled mass, the skin covering its central portion being livid, or of a darkish hue, thin and perhaps already broken; a deep fissure with hard borders, and discharging a sort of sanious pus, but prcsenting no healthy granulations, occupying this central spot. And now, if the nearest chain of lymphatic glands have not begun to enlarge, they will soon, when hundreds not demonstrated in the normal state will be distinctly felt in the axilla and neighboring parts, and soon after the enlargement of these glands a general swelling of the parts around the mammany tumor, and perhaps, also, of the corresponding arm. From this time on, all the local symptoms become aggravated, and the constitution soon betrays her sympathy, and the cancerous cachexia is established. Distant parts become the seats of the peculiar and destructive deposit, the primary tumor is now rapidly breaking down and disintegrating, and ere long, amidst sufferings that uo language can exaggerate, the patient expires in spite of every effort for her relief—no matter how well directed or perseveringly followed up.

Now let us see upon what points of practical significance we may be able to seize from this brief clinical sketch of a case of scirrhus of the mammany. I say "brief sketch of a case," because it is the history, as near as I can get it of the poor woman, now slowly dying of this horrible malady in Ward 30, after an illness of a little more than two years. You have often seen her before, and you will remember when we operated upon her. And I have also presented it to you as a typical case. The literature of the subjcct, the experience of every surgeon, will substantiate this.

The points of practical significance in this history seem to me as follows: 1st. The mode of attack. 2d. The involvement of adjoining tissues and the mode of extension. 3d. The final disease of the entire system.

1st. The mode of attack. She first observed a small hard nodule which was at the time movable. She was at this time, so far as we can learn, in perfect health. She was forty-eight years of age, having borne seven children, and had successfully passed the crisis of the menopaus. She says her digestion was perfect, and to use her own lsnguage, she ate well, slept well, and felt well all the time, and from day to day never experienced a pain. We may suppose that this little "growth" had existed some weeks before she discovered it, even, and add to these the time between the discovery and the period when the growth began to increase rapidly and to become painful, and we have a period of some months during which, so far as we know or may logically decide, the affection *was entirely local.* You see, gentlemen, that I am only presenting the clinical facts ignoring the plausible theories of Virchou and later authors, upon this point, which of themselves would seem to be conclusive.

The material of this formation, then, seems to have a local origin, and to be disseminated throughout the system from the primary starting points, by the complex agencies of the circulatory system. As in the case of this woman, so in all others that I have had opportunities of studying, there has been a period during which the affection observed clinically, presented no evidence of being other than a local one, or having other than a local origin, while farther on we find various parts and organs remote from the primary "growth," and from one another, infiltrated with a material similar to the primary one, and going through changes of the same kind, and all this independent of any plan of treatment.

And practically, gentlemen, this is, of all the deductions we have attempted, the most important one. Could we only be a little more specific, and name the time during which a schirrhus is a local disease, then might we in most cases cure our patients by extirpation with the knife. But alas! in the majority of cases the mischievous elements have already been dispersed beyond the reach of thc surgeon's knife before he has even been consulted by the patient, and herein lies the secret of return, either in the original site or in some remote parts, with such a uniform certainty. But you will at least conclude that if the evidences of a general dispersion are absent in any case that you may at least op-

erate with some feeling of hope. More of this, howeve, directly.

The second point to which I have directed your attention is the involvement of adjoining textures and the mode of extension. As already stated, this formation has the singular property of drawing into it all the tissues surrounding, sparing nothing. Its mode of extension is characteristic — by infiltration, and this cannot be correctly termed a "growth" in the ordinary sense of the word, for there is indeed, no single element of a cancer which may not also be found in some tumour called innocent. Fibre, cell, nucleus, nucleolus, molecule, liquid—all exist elsewhere. as well as in cancer. But neither in tumours of innocent character, nor in natural tissue, do these elements combine in such variety as is common in a single cancer. And this is characteristic of all genuine malignant growths—they *infiltrate*, inundate, and either appropriate and convert, or destroy the natural structures. This is the local mode of extension, while, in the mean time, the elements find their way into the circulation, and are rapidly multiplied, but gradually dispersed amongst various remote organs which (the liver most frequently) thus become the seats of secondary deposit.

And thirdly, and lastly, the final disease of the entire system. The organs and parts which are the seats of secondary deposits, become in turn points of multiplication and dispersion, so that if the patient survives long enough, you might finally be able to detect the cancer material in almost any part of the body, as in the case of this poor woman;—there were counted upon the surface of the body no less than one hundred and eighty formations, similar to the first growth in its early stage, within two months after the wound made in removing her breast had healed. These have all become very sensitive and painful, and increased in size. At present you cannot manipulate them ever so lightly. She is pale, of a cadaverie look, and very feeble—the digestive organs scarcely being able to manage a little beef tea or cream. Six months ago she weighed about one hundred and eighty-six pounds—to-day she weighs one hundred and sixteen, and can only with difficulty raise her head in bed to take water and other fluids. Her breathing is rapid and labored, and there are abnormal respiratory sounds over every part of the chest. Percussion over the hepatic region is dull over a greater area than is usual, upon the right side, and indeed over almost the entire remaining abdominal region. By pushing the fingers in upon the surface of the abdomen when she is deeply narcotized, we feel an irregular nodulated mass, and this arouses her, and she cries out in pain, showing, in my opinion, that the mesentery, has suffered from this infiltration. This woman will die exhausted—die because the various vital organs are infiltrated and overwhelmed—because the body cannot be nourished—the blood being abnormal in constitution and the lungs incapable of furnishing the requisite supply of oxygen—will be exhausted from constant wearing and irritation of the nervous system. But I cannot to day enter upon the discussion of the usual modes of death by cancer.

I have incidentally said that cancer seems to be hereditable. Certainly in a large number of the cases that I have observed, I have been able to hear of cases in the immediate line of the patient's ancestry. This case is most remarkable. Her father, grandmother and great grandfather, are all reported as having died of some form of cancer. Mr. Charles Moor mentions the case of a woman in Middlesex hospital, who had cancer of the *left* breast. She had *five* daughters, and all of these had cancer of the *left* breast, and all died Broca mentions a family in which there were sixteen cases of cancer in five generations—ten of which were cases of cancer of the breast, and all died. Mr. Paget has found that one-fourth of all the cases he has seen have seemed to be hereditary. And finally Mr. Sibley reports that particular towns in districts of England are more liable to it than others.

But in studying this disease, as in others, we shall find many cases—yes very many, which cannot be at all traced to any hereditary link whatever. But these, remember, furnish only negative evidence, and even very indefinite negative evidence.

[TO BE CONTINUED.]

[The editor regrets that his space forces him to leave out the concluding portion of the above lecture. We request readers, however, to bear this in mind.]

Clinical Reports.

CLINICAL GYNÆCOLOGY.

CLINIC BY PROF. T. L. PAPIN, ST. JOHN'S HOSPITAL.

REPORTED BY GEO. E. MC COSH, M. D.

CASE I.

Case of Masturbation—Clitorodectomy.—Miss Lizzie ——, born in the United States, aged 16 years, and unmarried, came to the clinic Dec. 11, 1872. She complains of pain in the back and down the inner side of thighs. Has leuchorrhœa. The patient is very hysterical and subject to cataleptic attacks. Bowels costive. Menstruated about six months ago, the first time. When examined with Sims' speculum, the womb was found retroverted, and the cervix erroded. The retro-

version was corrected by a Meigs ring pessary, and vaginal injections of warm water were ordered. The patient having admitted that she had practiced masturbation for some time, full doses of potass. brom. were ordered *per oram*. February 3, 1873, the whole of the clitoris was removed at one sweep of a pair of flat curved scissors. One small vessel was ligated and the wound closed with three silver wire sutures. February 12th sutures were removed and adhesions found to be complete. Full doses of patass. bromid. were continued. The operation has been but a partial success. The patient says she still masturbates, though she knows it is wrong. But her general health is greatly improved, and we may confidently predict that in a short time she will be discharged cured.

CASE II.

Case of Anteflexion, Dysmenorrhœa, Chronic Endometritis and Cystitis.—Mrs. J. R., born in the United States, aged thirty years, and married twelve years, applied at the clinic for treatment October 13, 1871. The history of this case is that ten years before she had been delivered of her only child. Has never miscarried. Patient says she was compelled to "get up too soon" and "caught cold." Has been suffering ever since. Complains of pain in the back. Profuse leuchorrhœal discharges. Severe dysmenorrhœa coming on a day or two before the menstrual flow. The uterine irritation at these periods often brings on hysterical attacks. Has frequent and painful micturation. The urine when tested by heat and nitric acid, does not contain albumen, but, on cooling, deposits a considerable quantity of mucus at the bottom of the vessel.

On digital examinatton marked vaginismus was found. The urethra and neck of bladder are tender to the touch. The cervix uteri in nearly normal position, while the uterine fundus was tilted forward and distinctly traceable anteriorly, and exquisitely tender to manipulation. Having placed the patient in proper position on the table, Sims' speculum was introduced with severe pain to the patient. The exploring probe, after bending the point to an *obtuse* angle to the staff passed into the cavity of an anteflexed uterus. The mucous lining of the cavity is very tender, and being touched with the point of the instrument causes the patient to writhe with pain. The patient suffers from anorexia and anœmia.

The diagnosis is anteflexion of the fundus of the womb. Chronic endometritis and chronic cystitis. The treatment indicated is mechanical appliances to correct the uterine malposition. Local uterine application of remedies for the sub-acute inflammatory condition and general tonics. The first indication is best fulfilled by Thomas' anteversion pessary, which was at once introduced. Solution iodine after the formula of Sir James Y. Simpson as follows:

℞ Iodine ʒ iv.
Potass Iodidi ʒ i.
Aq. Dest. ʒ iv. M.

Was applied to the uterine cavity by means of a film of cotton wrapped on Sims' flattened probe, and vaginal injections, of large quantities of warm water (120° F.) ordered. Wermouth wine and general tonics given per oram.

Improvement was slow but steady and satisfactory. The womb gradually lifted from its abnormal position, causing decided relief from the dysmenorrhœal troubles, and somewhat relieving the chronic cystitis. "Atlee's dilator" was passed into the bladder and the urethra dilated large enough to admit the tip of the *index finger*. This was done several times with considerable benefit. After more than a year's treatment this patient became a private patient of Dr. McCosh, who furnishes the final notes. The Thomas anteversion pessary was replaced by a smaller size. Solution iodine was freely applied to the whole cavity of the womb. Constitutional treatment of

℞. Quin. sulph. Ferri pulvis, aa. ʒ ss.
Acid arseneos gr. j. ext. nuc. vom. gr. x.M. Ft. pil. xxx. S: one pill ter die.

Vaginal injections of warm water continued, and injections into bladder of

Sodae bibor ʒii.
Glycerine ʒiii.
Aqua pura ʒv. M.

and inject ʒii. with ʒii of warm water twice a day, through an elastic catheter.

The bowels were kept soluble by a dilute solution magnes. sulphat. After six months treatment the patient was discharged cured, but kept under occasional observation. For a year she has been quite well, and does her own housework and washing.

CASE III.

Case of Anteflexion, Dysmenorrhœa, Endo-Cervicitis, and Sterility.—Mrs. A. D., born in the United States, aged twenty-eight years, came to the clinic January 27, 1873. She says she has been married seven years, and has never been pregnant. Has been suffering severely for six years. She complains of dysmenorrhœa coming on a day or two before the menstrual flow, and continuing during the whole period. Has considerable leuchorrhœa after the cessation of the catamenia, and has pains in the back, pelvis, and down the inner side of thigh following the course of anterior crural nerve. Sexual intercourse causes severe pain; catamenia irregular often coming on at the third week. Bowels costive, micturation frequent and painful. Appetite generally good.

On digital examination the vagina was

found hot and tender. The uterine cervix is but little displaced backward towards concavity of sacrum. The body is tilted forward toward the pubic arch and presses on the fundus of the bladder. The cervix is quite tender to the touch. Examination by bi-manual palpation impossible because of the fleshy condition of patient. On examination with speculum found follicular vaginitis. Mucous membrane, red, hot and dry. The cervix uteri somewhat erroded and highly congested. The probe passes into the cavity of an anteflexed womb, not tender to touch of instrument, but with narrowing of internal os. The diagnosis is endo cervicitis, anteflexion, and erosions of the cervix. The displacement was treated by introducing Thomas' ante-version pessary, and solution of iodine was freely applied to the cevical canal to relieve the congestion whilst vaginal injections of soda bibor 3ii in Oii of warm water were ordered twice a day.

℞. Tr. cinchon. co. 3iij, Elix. calisay. 3v.
M. S: tablespoonful three times a day.

Was given by the month. This treatment, both local and general p. r. n. was continued for about six months with gradual relief to the distressing symptoms and reduction of the anteflexion. The womb now evinced a disposition to settle down into the cavity of the pelvis. This was prevented by removing the Thomas pessary, and introducing a large-size Hodge pessary, which was worn till the October following, when she reported that the symptoms had disappeared, and was discharged.

CASE IV.

Case of Tortuous Canal—Severe Dysmenorrhœa and Incipient Epilepsy.—Miss W——, born in the United States, aged twenty-seven years and unmarried, came to the clinic August 30, 1872. Has been sick seven years, complains of severe dysmenorrhœa at the menstrual period, and is very nervous. For some time she has been subject to slight epileptoid attacks which have become gradually more frequent and of graver character. There is no history of epilepsy in the family for three generations. These attacks have forced her to resign her position in a young ladies' seminary in a neighboring city, and submit herself to treatment. The vaginismus is so severe as to render a digital examination impossible. The patient distinctly states that she *never* has masturbated. A few days after the first attempt the patient was brought under the influence of chloroform and examined with a Sims' speculum. After continued efforts the probe passed into the uterine cavity through a very tortuous and contracted canal. There is considerable tenderness in the cavity and environs of the cervix. Solution of iodine was applied locally and repeated attempts made to dilate the cervical canal with Atlee's dilator, but without permanent effect. It is always necessary to give chloroform before examining this patient. December 2d, 1872—a posterior section of the neck was made with Simpson's hysterotome Atlee's dilator was afterward used to enlarge the canal; marked improvement followed the operation.

In October, 1873, she went to a small town in this State and opened a school for children. During the winter and spring she grew worse, the attacks of epilepsy returning with renewed violence. In June of the present year she returned to the city, and posterior section of the cervix was performed in a most thorough manner, making a large canal which readily permitted the passage of Simpson's large-sized uterine sound. This operation was followed by marked improvement in all the symptoms. For some time she has been free from the epileptoid spasms, and the general health is good.

CASE OF PLACENTA PREVIA.

BY ALEX. B. SHAW, M. D.

Mrs. D., aet. 26, the mother of one child male, 2 years and 3 months old, aborted in February, '73, at the sixth week, and became pregnant again about the middle of January, 1874, has complained constantly of pain in the lumbar region since the middle of February, and suffered more than ordinary with morning sickness till the fourth month. From this time on she was troubled greatly with bearing down pains sometimes so intense as to lead her to believe that labour was upon her.

July 15th, at 4 a. m. she awoke from a comfortable night's sleep and found herself lying in a pool of blood, and that she was still flooding. Her family physician prescribed.

The hemorrhage continued 56 hours, gradually becoming less and less till it ceased.

This flooding coming on without premonition was not accompanied by the least pain.

On the 27th day of July, she had to use her own language, hard labour pains for 2 hours and a half; for their arrest her attendant prescribed chloral hydrate, with immediate effect.

She regained her strength rapidly and felt quite well (with the exception of the bearing down) until the 14th of Aug. From this till the 21st she had diarrhœa (averaging four or five stools a day) unaccompanied however, by tenesmus.

Aug. 21st, at 12 M. She again began flooding quite freely without having had the slightest warning. She at once summoned a physician who prescribed.

R. Plumbi acetatis gr viij
Pulv. Opii gr iv

one fourth part to be taken every hour, and rest in the recumbent posture. Slight pains, cutting in character commenced about 2 p. m. gradually increasing in severity till 5 p. m., when they became bearing down and shortly after ceased. At 5.30 p. m., I saw the lady for the first time and learning the treatment ordered, advised its continuence and declined to have anything farther to do with the case.

But Aug. 22d, at 2.30 a. m. I was informed that my services were wanted immediately, that the lady was in labour, and that my predecessor had been discharged, —found the lady suffering from pains beginning in the lumbar region, passing forwards and downwards—recurring every 8 or 10 minutes and slightly expulsive in character; but little hemorrhage; pulse 100 — feeble, nauseated, pale and emaciated.

Vagina quite small. Os tincæ about the size of a 5 cent piece, thick and spongy or doughy, yet undilatable.

Upon abdominal palpation, discovered the child's head in the right illiae fossa. Ordered the application of cloths wrung out of cold water and vinegar (equal parts) to the hypogastrium, vulva, and the inner portion of the thighs, the same to be changed every 5 minutes; removed pillows from under her head and exibited internally sol morphia sulph. z ij every hour, and R. Fl. ext. ergot gtts x Tinct. cinnamomi z ij every hour alternating with morphine. 6 a. m., hemorrhage arrested; pains have ceased; patient inclined to sleep and nausea gone; continued treatment. 9 a. m., pulse 90, has had an hours sleep,— no more pain or bleeding; ordered beef-tea and milk diet; treatment continued. 5 p. m., has not slept any more notwithstanding continued exhibition of opiates, ordered it discontinued. 10 p. m. has had several short sleeps of about 30 minutes duration; ergot and cinnamon discontinued; cold applications to be changed every fifteen minutes, and half a pint of cold water to be injected into the vagina every 4 hours.

Aug. 23, 8 a. m. Passed a very comfortable night, pulse 85, soft, and more full skin moist, micturated freely; bowels unmoved. Continued cold applications and vaginal douche and ordered

R. Tinct. Ferri chlor gtt xv.
Quiniæ sulph gr ij.

every six hours. 10 p. m., discontinued the cloths wrung out of vinegar and water. Quinine and steel to be kept up.

The patient steadily improved under this treatment until the 25th, about 4 p. m. when the flooding began again quite profusely unaccompanied however by pain. Arriving soon afterwards I introduced sponges and fragments of old linen into the vagina till it was distended to its utmost capacity. Then packing the vulva, a bandage was so applied as to support and retain the tampon in situ; ordered cold applications as before to be changed every five minutes. Tinct, Gelseminum. Sempervirens gtt xij every hour, and

R. Plumbi acetatis gr iv
Morphia acetatis gr ¼

every three hours. 7 p. m., no hemorrhage after introduction of Tampon. Continued treatment and ordered lemonade to be used as the common drink. 10: 30 p. m., retention of urine caused by tampon. Evacuated bladder with the catheter. Otherwise doing well.

August 26, 9 a. m, catheterized. Discontinued lead and morphia. 9 p. m. catheterized again.

August 27 9 a. m., tongue coated white; suffers from colicky, pains in the abdomen. Continued lemonade, gelseminum,and cold applications. Ordered pulv opii gr i every three hours, sinapism to the epigastrium and aqua. menth. piper. gtt xv every hour while pain continued. Removed tampon and renewed vaginal douch. 3 p. m. micturated freely, feeling quite comfortable. 10: 30 p. m. summoned in haste; patient has just had a severe rigor of about fifteen minutes duration; pulse 100, temperatnre 100, tongue covered with a whitish fur. Continued treatment and prescribed quinia sulph. gr iv every four hours.

August 28, 8 a. m., pulse 120, temp- 101½, tongue white at base, with a dry glistening line along its center from near base to the apex. Continued treatment and ordered enema of cold soap suds, to be repeated in an hour if bowels are not moved. 11 a. m. pulse 130, tempt. 102. 3 p. m., pulse 110, tempt. 100, tongue moist; discontinued opium, and ordered chloral hydrate gr xv every hour till sleep was induced. Suspended cold applications.

Vaginal douche, quinia and gelseminum to be continued. 9 p. m. tongue cleaning off, pulse 100, tempt 99½, slept 3 hours. Continued quinia and vaginal douche.

August 29th, 1:30 a. m. Informed that Mrs. D. was dying. Upon my arrival at the bed-side, I found her in a state of syncope, induced by a dangerously profuse hemorrhage. As no blood was escaping from the vulva, I enjoined absolute silence, and despatched a messenger for my friend, Prof. J. K. Bauduy, to assist in the further conduct of the case, for I was convinced that at this juncture. nothing but the delivery of the child would be of avail in saving a valuable life. Not more than ten minutes elapsed from the commencement of the flooding until I arrived, yet during this interval over a gallon of hlood had been lost. The instant returning consciousness was detected, I again packed the vagina and vulva and adjusted the retaining bandage as before. Administered enema of cold water and renewed the cold applications to the hypogastrium, vulva and thighs.

Pains came on about 2:30, and continued until 8 a. m., when they abruptly ceased, and our patient slept for two hours. On her awakening, they returned; very feeble at first, but becoming stronger under prolonged kneading and friction over the uterus, and gradually assuming an expulsive character, so that the tampon was being slowly protruded, but as our patient's strength was evidently failing, and believing that the tampon was retarding the progress of labour, we concluded about 11 a. m., to remove it and turn and deliver, or, failing in this, (as the child was already dead), to follow the method of Simpson. Administering spts. amm. aromat. to our patient, and placing her in the position for obstetrical instrumentation, with the hips elevated considerably above the head and shoulders, the tampon was rapidly yet cautiously removed. But the os uteri, though dilated so as to admit of the introduction of three fingers was undilatable, so the idea of turning was necessarily abandoned.

The attachments of the placenta at and near the mouth of the womb, were now thoroughly broken up, about one-third of its substance removed, and the membranes ruptured so that the presenting part, (the head), of the child might at once press upon the lacerated vessels. Not more than an ounce of blood was lost during this whole procedure.

The pains suddenly becoming very weak, we applied one pole of a Kidder battery to the os uteri and the other one alternately to the sacral and supra pubic regions, and had the satisfaction of seeing our patient in active labour in ten minutes. Finding, however, that there was no progress, the head still being at the superior strait, the forceps were twice applied, but slipped so soon as traction was made.

The os uteri still greatly impeding the progress of the head, the largest sized Barne's dilator was introduced to facilitate dilatation. This, conjoined with strong pressure over the fundus with each pain, resulted, in bringing the head to the floor of the pelvis; but at this ju.ncture it became necessary to resort to the forceps to expedite delivery.

But again were the resources of the obste trician put to the crucial test, for from inertia, the womb refused to contract sufficiently after the expulsion of the remainder of the secundines, to prevent hemorrhage. To meet this indication, ergot was administered, the battery re-applied as before, the womb grasped through the abdominal walls, the aorta compressed, cold water poured from a height of several feet upon the abdomen the os titillated and ice introduced into the vagina.

Contraction occurring, the electricity was withdrawn in a few minutes and the tonicity maintained by grasping the fundus and occasionally introducing ice up to the cervix. We were compelled to pursue this course for fully one hour. A large compress was then applied over the fundus and retained by a snugly-fitting binder. No more hemorrhage occurring for two and a half hours, we left our patient, directing the administration of fl. ext. ergot 3ss. every half-hour till our return. Pulse 130 —temperature 97½.

10 p. m., doing well; pulse 128; temperature 98. Allowed the elevation of the head, so as to be on a level with the hips. Ordered beef tea freely; silence, so far as possible, to be observed in her apartment, and no person but the nurse to see her.

August 30th, 9 a. m. Pulse 132; temperature 100. Slept but little during the night. No undue tenderness of the abdomen; micturated freely. Cannot retain beef tea. Ordered sinapism to epigastrim; spirits vini gal. 3ss. every two hours; quinia

sulph. gr. vj. every four hours; ice to suck when thirsty; iced cream and lime water two tablespoonfuls every two hours, and a tablespoonful of ice cream every hour. 2 p. m., pulse 140; temperature 102; tongue very dry in center; stomach less irritable. Continued treatment. 7 p. m., pulse 148; temperature 102½. Ordered Valentine's meat juice; a teaspoonful to two tablespoonfuls of cold water every two hours. Cream and lime water, ice cream and brandy same as before.

August 31st, 9 a. m. Slept about four hours; could not retain meat juice; pulse 136; temperature 102¼; tongue still dry; facies improved; lochia scanty and very offensive; breasts painful; milk coming freely. Ordered continuance of brandy, ice cream, cream and lime water and quinia as before, gr. vj. every four hours until 18 grains were retained; also, the injection of half a pint of tepid water into the vagina every six hours, and

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Pul. camphor. 3ij.
Ext. belladonnæ 3i.
Ungt. simplicis 3i.

M.

to be applied to the breasts freely three times a day. The breasts to be drawn every six hours. 3 p. m., pulse 138; temperature 102½. General condition unchanged. Continued treatment. 7 p. m., pulse 128; temperature 101½; tongue more moist; considerable borborygma; no more nausea. At request of patient, allowed cup of strong coffee, without milk or sugar. Treatment continued.

September 1st, 9 a. m., pulse 108; temperature 100½; tongue quite moist; bowels evacuated doring the night; complains for the first time of tinnitus aurium; facies markedly improved. Continued treatment, excepting quinia. 3 p. m., pulse 108; temperature 100¼; skin moist; continued treatment. 7 p. m., pulse 104; temperature 100. Prescribed quinia as before, and continued former treatment.

September 2d, 9 a. m., pulse 96; temperature 99; general condition decidedly improved; treatment continued. 3 p. m., pulse 90; temperature 98; discontinued quinia. 7 p. m., pulse 84; temperature 98½. Ordered toast water, chicken broth and coffee. Discontinued ice cream and lime water. Brandy, cream, and warm vaginal douche continued.

September 3d, 9 a. m., pulse 80; temperature 98. Treatment the same, except that the brandy was now given every three hours. 9 p. m., pulse 82; temperature 98. Continued treatment.

From this date the improvement was very rapid, the lady sitting up on the 13th, and being able to superintend her household affairs by the 16th.

2946 CLARK AVE., Sept. 18, 1874.

Proceedings of Societies.

ST. LOUIS MEDICAL SOCIETY.

St. Louis, May 9th, 1874.

Resuming the subject of bone surgery under consideration at a former meeting, Dr. Gregory remarked, a few years since I was called to a patient suffering from an injury about the shoulder. On examination I thought there was *a fracture*, but not being able to dctermine satisfactorily what bone, I called Dr. Pope in consultation. After a careful examination Dr. Pope pronounced it fracture of the neck of the scapula. So striking was the appearance of the adjacent parts that I had a plaster-of-Paris cast of it taken, and exhibit it annually to the medical classes, to show them the possible, and even probable existence of such a fracture.

It is reported of Sir Astley Cooper, that a somewhat similar case occurred in his practice—he pronounced it fracture of the neck of the scapula; but being somewhat in doubt as to the correctness of his diagnosis he begged of the patient the privilege of examining and dissecting the specimen should the patient diebefore he did. The patient died first, Sir Astley finally secured the specimen, and on dissection found *fracture of the anatomical neck of the humerus.*

We can not call in question *the fact, for it is a fact*, that the ablest and most skillful surgeons have occasionally been in doubt as to the exact lesion, in cases of injuries received in the vicinity of joints. The hip-joint is perhaps the subject of more uncertainty in this respect than any other joint in the body.

Let a man assume to be a surgeon, and having examined and treated a multiplicity of cases he will eventually meet with one which he cannot fnlly comprehend. As a rule, the signs of fracture are clear enough, and yet *some* occur—all of us have met with such—where the evidences are extremely obscure. I would never boast of the fact that in a certain case I may have been more fortunate than a professional brother in ascertaining the true lesion, fracture or dislocation. least in the next instance *I* should be unfortunate in diagnosis. That surgeon does not live who does not fully appreciate the importance of differential signs and symptoms be-

tween dislocation and fractures about the hip-joint.

I am tn the habit of treating my patients for the trouble which I suspect to exist, whether it be dislocation or fracture, and at the same time if I am in doubt *as* to the correctness of my diagnosis I tell my patient and his friends the possibility of error in my diagnosis. I treat the case as if it were as bad as I think it can possibly be.

With reference to fractures of the skull, I will say, that in my early practice I used the trephine frequently, but *now* I am not near so ready to use that instrument, nor do I entertain half the anxiety about the result of such fractures as I did when I began the practice of surgery. I let them alone, unless they are deep and compound or impacted. When it is necessary to raise the fractured skull I usually do so without the use of the trephiue. I avoid the use of that instrument as much as possible.

Dr. Dean exhibited specimens of animal and vegetable parasites infesting swine, beeves and chickens. In 1000 dressed hogs sold in the city markets, 13 or 1.3 per cent, were found infected by trichinæ. Of five hundred hogs examined for Rainey's bodies, or psorospermal sacks (*Synehytrium? Miescherianum*, Kuhn), vegetable parasites, etc., seven per cent. were found infected. In one hundred beeves three were infected. On an examination of rats caught about the slaughter houscs *all* were found to contain trichinæ. Of eighteen hogs examined euch had from six to eight hydatid cysts in its liver, and some of them had cysts in other organs. These cysts contained millions of ecchinococci, and these livers were thrown away in reach of dogs. Almost every hog contained a large number of the ronnd worms (*Ascaris lumbricoides*) infesting man, sometimes the intestine was almost completely obstructed by them. These hogs also contained a number of hollow worms (*Echinorhynchus Gigas*) These last worms hang by their hooks upon the intestinal walls. In a portion of intestine fifteen inches long, exhibited, there were a dozen worms. These worms sometimes penetrate the intestinal wall and pass into the peritoneal cavity. They have been found in man also. In one stage they live in the white grub or larva of the May-bug; and with these hosts are taken into the *primæ viæ* of the swine. In examining the hogs mentioned above, a large number of worms *Strongylus dentatus* were found in the pelvis of the kidneys, in the leaf-lard etc., etc. These little worms are the same as those found in swine in Brazil and in Australia.

Dr. Dean gave an account of the literature concerning the last worm from Diesing to the present time. It is thought by some that these worms play an important part in the production of hog cholera. In the connective tissue under the skin of chickens he found white cysts, the size of pin's heads, containing apparently amorphous or anhistic matter. He did not yet know whether they were of animal or vegetable nature. In the pleuro-peritoneal cavity of the same fowls he found a large number of vivaparous mites, the species of which he had not yet determined, apparently a Tyroglyphus. He also found one inside the pericardium, and some in the trachea. They were sometime under the endothelium as itch mites are under the epithelium. Since this discovery he had found that Mr. Robertson, demonstrator of anatomy in the Univerity of Oxford, in 1869, found somewhat different mites in the connecttve tissue under the skin, on the pericardium, and along the outside of the walls of the large blood vessels, in the pigeon. Col. Montague afterward found them in the gannet, and still later Mr. Robertson found them in the pelican. The pleuro-peritoneal cavity of most birds is connected by cellular cavities with the lungs, and some of the mites having closed air-sacks, respire by a kind of diosmosis. In the intestinal wall of the same fowl, Dr. Dean found cysts visible and removable through either the serous or mucous side, and each contained a single larva (in one case two) of a nematoid or round-worm, which would appear to a superficial observer. to be tricinæ, in ihe encysted or larval stage. This larva is, so far as he knew, hitherto nnknown. These mites and worms he finds are common in the chickens of this market. A more complete description he postponed to another time or place. He wished to correct an error that occurred in the discussions before the Society; *trichiniasis* and *trichinosis* are synonyms for the trichinous affection in all its stages and do not designate respectively the disease when the trlchinæ are in the muscles and when they are in the intestines. Vogel and Rupprecht designate three stages of trichinosis: first, that of *Ingression*, lasting about eight days to the beginning of the emigration of the embryos; second, the stage of *Digression*, when they wander in the muscles, lasting three to four weeks and passing into the third, or stage of *Regression*. In the meeting of January 31st, he intended to say that instead of two species of tape-worms there are more than twenty species in the order of Cestopedes infesting man and domestic quadrupeds alone: more than two hundred and thirty species are known.

ST. LOUIS, May 16, 1874.

Dr. Gregory exhibited an enormous mammary tumor—weight 20 lbs.—which he had recently removed from a lady fifty-two years of age. Tumor was of a malignant character. When first observed, fifteen months ago, it was a small lump in the breast, about the size of a marble, her attention was then accidentally called to it, by touching it while dressing. It grew rapidly, in six months it was very large. Two physicians had advised

its removal early last summer, while it was about one-third its present size. He was recently consulted by letter by her attending physician. In reply he addressed the physician three queries. viz: 1. Are there any glandular enlargements in the axilla? 2. Can the tumor be moved on its base? 3. Is the patient's general health good? Answers, viz: 1. None. 2. Easily. 3. Excellent. He then visited her and found the answers correct. The weight of the tumor was so great that the patient had to support it constantly on a pillow. Patient had determined to have it excised, and was anxious for him to operate. He advised her of the dangers of the operation. As the base of the tumor was twenty-one inches in circumference he would be compe led to expose a large surface. The tumor had already begun to fungate, and was very offensive. Other prominences could be seen on the surface, which would soon break through the skin. The tumor had not been examined microscopically, but he supposed it a malignant sarcoma rather than carcinoma, because the axillary glands were not involved. Pathologists have not been able to trace the lymphatics into the substance of sarcomas, as in carcinomas. Patient sustained no great shock by the operation, and at last accounts was doing well. He was assisted in the operation by Drs. Hawkins and Collins.

Dr. Gregory related another case from whom a part of the mamma had been removed four times in snccession, and as often appeared, at the fifth operation, the entire mamma was removed, laying bare the costal cartilages. Five operations were performed within a period of twelve months. The last wound healed kindly, patient's general health improved, and she recovered, and now lives in good health. Three years have passed and no return of the tumor. Why did this tumor recur four times? Was it because the surgeon failed to remove all the tissue involved, or was it due to a local predisposition, I cannot say.

Dr. McPheeters—Do you believe in a specific cancer cell?

Dr. Gregory—No, sir, but I *do* believe in a speeific cancer structure, a structure which is not analogous te any other structure found in the human body from the time of conception to the day of death.

Dr. Keith exhibited a man who had lost his right arm and most of his left hand in a saw-mill. The saw lacerated the left hand in such a manner that amputation was performed through the metacarpal bones of all the fingers, removing two-thirds of each, bnt leaving the metacarpal bone of the thumb entire. To the stump the man had attached a small wooden block, against which the metacarpal bone of the thumb worked, the muscles of the first metacarpal bone enabled him to use the stump as an organ of prehension, to use the pen in writing, etc., making a useful member, in the absence of his right arm. This case illustrates the importance of the surgical rule. In injuries about the extremities to save every fraction possible. One of the surgeons in attendance advised the removal of the first metacarpal bone on a line with the others. Conservative surgery, however, had saved the man a useful member—a tolerably good hand.

Dr. Gregory remarked that this case reminded him of two cases of tetanus which recently occurred in his practice, each was the result of a lacerated wound of the hand. In one case he did not amputate the fingers—tetanus supervened and the patient died. The question was asked, "Had I amputated the fingers would not tetanus have been prevented?" He replied, lacerated wounds of the fingers and hands occur so frequently that if we yield to the notion that tetanus will result if amputation be not performed, that we would be cutting off fingers almost daily. He is decidedly in favor of conservative surgery. In reply to the query, what is the cause of tetanus? he said, I do not know, but I believe that exp sure during the cold damp weather in spring time predisposed my patient to tetanus and to erysipelas, after sustaining laceration of the hand.

Dr. McPheeters—How many cases of traumatic tetanus have you known to recover?

Dr. Gregory—Several. If I had been asked this question ten years ago, I should have said *none*. But I now remember at least six cases in my own practice, and have heard of others in the practice of other physicians. With reference to treatment, I cannot say that much good resulted from the administration of *any* remedy. I used kali bromidi, chloral, arsenic, tr. canabis indica, without apparent effect. I used calabar bean also, and have no confidence whatever in it. I used tobacco freely in the treatment of one of the cases reported, keeping the back of the wounded hand in ambier. I am informed that a case of traumatic tetanus occurring in Dr. McDowell's practice recovered on the kali bromidi treatment alone. All cases of traumatic tetanus are not acute. If the patient lives 8 or 10 days, there is a chance of his recovery. (I know of no death from idiopathic tetanus.) The chances for recovery increase very considerably after the lapse of one week. Tetanus generally occurs after the receipt of a trivial injury. I have known tetanus acute, intense and fatal, to supervene after the wound had healed. A little boy—Dr. Frazer's patient—was struck in the face with a bat, the wound healed, ten days afterwards tetanus began and the boy died the next day. He then related an extraordinary case of tetanus occurring two years ago, a boy's arm had been twisted off at the elbow, the humerus of his other arm was fractured, both femurs were also fractured. He put the

limbs up in plaster-of-Paris. Tetanus supervened on the tenth day, the boy lingered ten days longer and then died.

Dr. Montgomery said that none of his cases of tetanus occured in patients of nervous diathesis. One case, a strong, muscular Irishman, after receiving a slight contusion on the temple, exposed himself on a cold day, and tetanus and death ensued. Another fatal case occurred—the subject was a muscular man, and the opposite of what might be termed the nervous diathesis. In all these cases he used whisky, morphine and tr. canabis indica without effect. Another case, a large stout man, ran a nail into his hand in the winter time, paid no attention to the wound, and in 4 or 5 days he was attacked with tetanus. He bled him freely, and then gave him all the whisky he could drink—it was impossible to produce intoxication—he also gave arsenic and tr. canabis indica, this occurred befors the introduction of chloral hydrate, the man recovered in two weeks. Dr. Montgomery considers chloral and whisky in large quantities the best remedies at our command in tee treatment of tetanus. They constitute his "stand by."

Dr. Enders reported a case of tetanus treated successfully by Prof. Gross. Treatment—opium, by the stomach, and morphia hypodermically.

Dr. Montgomery mentioned another case of tetanus, treated successfully by Dr. Barnes, Sr., with arsenic.

Dr. Kennard quoted from Dr. Gross as follows: — "During an extensive practice having met a large number of cases of tetanus, I never saw but *one case* recover. We all know that a large majority of the cases of traumatic tetanus die, that recovery is the exception." He related a case, patient's great toe had been so injured that he pronounced amputation necessary, it was delayed, patient was transferred to the care of another physician, who opposed amputation. The toe sloughed and tetanus supervened, but the patient finally recovered. Another case of traumatic tetanus was caused by the rubbing of a shoe, giving rise to the formation of an abscess over the joint of the great toe; abscess was opened and calabar be an administered, but patient died of tetanus. He mentioned another fatal case of tetanus caused by fracture of the vault of the skull. He regards idiopathic tetanus as a self-limiting disease.

Dr. Warren Stone, of New Orleans, held his opinion.

Society adjourned.

Dr. Keith reported a case of puerperal metro-peritonitis, showing the insidiousness of the attack, the rapidity of its course and its relationship to eryspelatous complications. The question of the contagious character of puerperal diseases and erysipelas was discussed. By some coincidence, due to atmospheric conditions or epidemic influences, patient had both metro-peritonitis, and erysipelas of the hand and arm. He mentioned as an instance of such coincidence, the fact that it had been observed during the prevalence of an epidemic of purulent infection or erysipelas among cases in Nelaton's surgical wards, almost every woman in Dubois' ward for the lying-in was attacked with puerperal metritis, and a great number of them died. Could not the same atmospheric condition which caused the former be also productive of the latter? We all regard and treat erysipelas as a blood disease, having a strong tendency to localize itself on *the skin*, and occasionally extending to a *mucous* membrane, which is but an extension of the skin,—while peritonitis we know to be an inflammatory affection of a *serous* membrane. Why then affirm, as some have done, that the mere existence of the one will give rise to the other?—that the *materies morbi* of both are identical? May we not satisfactorily explain the co-existence of the two diseases, viz: When that peculiar atmospheric influence which is known to be productive of erysipelas is prevailing, parturient women are exposed to it in the same manner, and to the same extent, as patients on whom surgical operations have been performed; after parturition the womb is in a pathological condition, it has thrown off the large mass of the placenta, leaving a bleeding surface, requiring a sort of healing process, and requiring also a process of *the most active absorption*, in order to reduce the womb from its post-partum weight of 1 1-2 lbs., to its non-gravid weight of two and a half ounces. In this condition the uterus has with propriety been compared to a bleeding stump. The epidemic poison of erysipelas may, therefore, first attack this wounded snrface, as it does an amputated limb, and transmitting itself by contiguity of tissue may be carried to the peritoneal covering of the womb, and along the Fallopian tubes, to other portions of the abdominal lining.

During the prevalence of an epedemic of erysipelas or puerperal metritis, I would give my parturient patient the advantage of prophylactic treatment, small doses (two grains) of quinia, 3 times daily for 10 days previous to her confinement, and continue it for a week after delivery. After the accoucheur has attended to cases of midwifery, in each of which violent metritis has ensued, let him desist for a time from obstetrical practice.

Dr. Ad. Green remarked that many cases of puerperal fever occur sporadically, some are due to a septic poison, others to inoculation, by means of the accoucheur's instruments. Atmospheric conditions, doubtless cause many cases of it. His treatment consists of quinia and morphia.

Dr. Kueckelhan stated that mucous mem-

branes are subject to three kinds of inflammation, catarrhal, croupous, and diphtheritic. The mucous membrane of the uterus may be entirely destroyed in childbed fever. Puerperal fever is due to fungi. It is a specific or zymotic fever, and is highly contagious. It may give rise to a consecutive erysipelas. Men may have a similar inflammation, the husband may be attacked with a croupous or catarrhal inflammation of the throat at the time his wife is suffering from puerperal metritis. His treatment consists in antizymotic and anti-parasitic remedies, quinia, iron, arsenic, etc. It is an aplastic inflammation, and a dangerous diseose. Inflammation is generally considered to be a burning up process, but in my opinion it is directly the opposite process. Life and not inflammation is a burning up process. Life has aptly been compared to a furnace, to which we furnish fnel for threescore years and ten, and when the fire in the furnace dies out for the want of fuel, and the life grows dim and flickers away for want of oil, we call that death. Inflammation on the contrary is an interference with—a stoppage of that burning up process, which we denominate life. In inflammation it is notoriously true that *heat* and pain are frequently absent.

Dr. Edgar remarked that puerperal fever had *two* causes, at least, traumatic, and zymotic. Puerperal metritis due to the first cause is not transmissable—not contagious; but if due to the second cause, it is highly contagious. He mentioned an instance in which the accoucheur shaved, cut off his hair, took a Turkish bath, and donned an entirely new suit of clothes before visiting a second case of labor, and yet his patient was attacked with puerperal fever. Under the head of traumatic causes, he mentioned violent or severe pressure over the region of the uterus, after delivery of the child, in order to expel the placenta. He opposed the use of pressure for that purpose.

Dr. Thomas Scott said, puerperal fever may arise from a variety of causes. He related a fatal case due to mental emotion as he thought. No evidence whatever of contagion existed in the case. It was as well marked and as well developed a case of puerperal metritis as he ever met.

Dr. Hughes thought mental emotion inadequate to produce puerperal fever. He therefore doubted Dr Scott's theory. In his opinion some latent cause existed, beyond mere mental excitement.

Dr. Hodgen reported a case of traumatic aneurism of the posterior tibial artery, (due to a gun-shot wound,) on which he had recently operated. He first applied pressure, using the tourniquet, but was unsuccessful at his first effort. He then operated by cutting into the cyst, turning out the clot and tying the artery. He adopted Esmarck's plan for bloodless operations. The tissues were divided, so far as bleeding is concerned, almost as readily as on the cadaver, there being neither blood nor the constant dabbing of sponges into the wound to remove it, to interfere with the surgeon's sight. No bad results follow the use of the apparatus, the usual operations for the ligation of arteries are bloody, and patients, as a rule, can ill afford a serious loss of blood.

Society adjourned.

ST. LOUIS, June 6th, 1874.

Dr. Buck reported a case of chorea in a child under five years of age, belonging to a healthy family, in which no evidence of hereditary transmission could be discovered—no other member of the family having been afflicted with paralysis, epilepsy, chorea, insanity, or other nervous affection. He thought the disease due to the fact that the child had been associating in play with a mute, and frightened by him. He advised the family to remove to another part of the city. During the past month he had used the following remedies, cimicifuga racemosa, tr. valerian, nux vomica, Fowler's solution, chloral, kali, bromidi, besides anthelmintics and purgatives. He could observe no improvement. Child's general health was good. He was anxious to hear suggestions from other members.

Dr. Coles said, "Several years ago I read a monograph by Dr. Rogers, of France, on the subject of chorea, in which the author stated that the rheumatic diathesis is generally, if not always present in chorea, and that on examination of the heart, a cardiac murmur can generally be detected. I have observed the presence of this cardiac murmur in several cases of chorea examined since reading that book. I consider the murmer due to the anæmic condition of the patient and not to any organic lesion of the heart. I never met with a case of chorea in one so young—under five years of age. Chorea is more liable to occur about the time of the advent of second dentition, say from six to ten years of age." He related the following case: a child seven years of age was sick in a distant State, the attending physician informed him that the child was suffering from chorea, and that he was treating him accordingly. Child's symptoms, he found on visiting him, were loss of courage, night-terrors, he was exceedingly nervous and afraid to sleep in a dark room. On examination he found the child was cutting three or four teeth. After the teeth came entirely through, all the symptoms rapidly disappeared. Chorea is apt to occur just at this period in the life of all children. In chorea the indications are to improve the general health of the patient by the administration of tonics, quinia, iron, etc., they nearly all get well after a while.

Dr. Keith thought Dr. Buck had not given

any of the remedies mentioned, ample time. His treatment of chorea was exercise in the open air, with tonics and antispasmodics. If patient be a girl old enough, let her sweep or churn, and in this way endeavor to control the spasmodic action. The administration of kali bromidi in gr. xx doses three times daily together with quinia, reduced iron and valerianate of zinc had been successful in the treatment of all cases at City Hospital, in from two to six months.

Dr. Bates reported a death from hemorrhage. Patient, a boy, received a trivial injury about the forehead, all his efforts to stop the hemorrhage proved inefficient and temporary, child lingered four weeks and died. *Three brothers, three uncles, a grandfather and two great uncles had died of hemorrhage.* This was a marked illustration of hereditary transmission. In the family referred to, the girls were exempt, the boys only being affected.

Society adjourned.

ST. LOUIS, JUNE 20th, 1874.

Dr, J. M. Scott reported a case of poisoning from the *rhus toxicodendron*, successfully treated by the local appliction of an aqueous solution of hydr. bichlor. to the face, arms, hands, etc.—Dr. Eberle's favorite treatment. Patient had not been exposed to the poison vine, but had received a bouquet from a friend in the country; she had been poisoued by beautiful flowers. He had never heard of a similar case, hence he reported this. What particular flower caused the eruption?

Dr. Kennard thought the symptoms described by Dr. Scott somewhat resembled urticaria, and that the woman probably suffered from an obstinate attack of urticaria. After a patient has been once poisoned by the poison oak, the disease is apt to recur every spring or summer for several years. Such persons are exceedingly susceptible to the poison, if they pass near the vine the disease reappears, the eruption breaks out and they swell up. He related a case of poisoning by the *rhus toxicodendron* which closely resembled a slight case of psoriasis. It usually lasts six or seven weeks unless treated.

Dr. Dalton read a brief paper on the local treatment of diphtheria. In diphtheria, the exudation depends on a parasitic fungus which is best dislodged by parasiticide remedies. It is difficult to penetrate and remove the exudation by applying arg. nitr. in solution. The whalebone probangs are not stiff enough to admit of the force necessary to sponge out the throat and remove the false membrane. He uses a sponge the size of a nutmeg, tied to a small stiff stick, and dips it into a mixture of carbolic acid, honey and water, or tr. ferri mnr., honey and water, thrusts it over the tongue to the back of the pharynx and quickly turns it around three or four times and then removes it. This is done once daily. His formula is

℞ Honey and water, aa ʒj.
Carbolic acid, gtt. xx-xxx.

Sometimes stronger. Another formula is

℞ Hony and tr. ferri mur. equal parts.

Again,—

℞ Honey and water, aa ʒj.
Tr. ferri mur., ʒij.

Constitutional treatment consists in quinia and tr. ferri mur., with milk diet, *ad libitum*, He uses the same constitutional treatment, and the same local applications reduced in strength, in treating scarlatina.

Dr. Kennard considered Dr. Dalton's treatment of diptheria barbarons—too severe entirely. *His* local application in diptheria consists of *oil of sassafras* applied with a fine camel's hair pencil, with a curved handle, or the oil of turpentine, two or three times daily. This application will soon relieve the throat affection. Constitutional treatment, quinia, iron, etc., is absolutely necessary. In his opinion there can be no doubt of the contagious character of diptheria, to confirm this statement he mentioned several cases as illustrations. One man after being treated six months for diptheria in New York, and discharged well, communicated that disease to persons in the same car, on his route to St. Louis, and to others in Dr. Kennard's family after his arrival here, for he still had nasal diptheria.

Dr. Bates was inclined to doubt the contagious character of diptheria *because of the general good health and longevity of homœopathic doctors* who are frequently called to attend such cases.

Dr. Stevens said, diptheria is more manifestly contagious than epidemic. He favored both local and constitutional treatment, quinia especially. We remove the false membrane of diptheria and pseudo-membranous croup, from the fauces, pharynx, etc., but we cannot remove it from the trachea and miuute bronchiæ and air cells. He opposed Dr. Dalton's treatment as being too rough, the probang, hair pencil or the spray are much more mild and doubtless equally as efficient.

Dr. Johnston favored constitutional treatment in every case of diptheria. He gave quinia in large doses, and used kali chlor. internally and as a gargle.

Dr. Leffingwell used constitutional remedies in every case and applied ice locally, together with sol. acid carbolic with the spray.

Dr. Rumbold stated that the spray apparatus had long since displaced the probang and the camel's hair pencil in his practice. The spray is far more efficient in its application, reaching every crease and corner of the pharynx, the epiglottis, naso-pharyngeal space, etc, The probang produces contraction of the constrictor muscles of the pharynx and its

application is necessarily incomplete. He can remove *every particle* of the false membrane with the spray. Instead of being frightened by the apparatus, after the first or second application, children are anxious for it, and their mothers beg him to let them use the apparatus in his absence. He uses a solution of acid carbolic as *the* remedy, with the spray. A solution of tr. ferri mur., one part to four parts honey or water, is excellent. Tr. ferri mur. as a local application acts better with honey than with either sugar or glycerine. He uses same applications to the throat in measles and scarlatina. He also uses quinia gr. i-ij every three hours. He never uses kali chlor. locally, he has seen its application produce pharyngitis.

Dr Edgar would not remove the false membrane unless observed detached, least he do violence to the tender membrane beneath, particularly as where it was most harmful it could not be reached. He preferred the spray in his local treatment of diptheria, but depended chiefly on constitntional remedies.

Dr. Hughes and Dr. Green both favored constitutional remedies in the treatment of diptheria, as both regarded it clearly a constitutional and contagious disease.

Society adjourned.

CLAYTON KEITH, M. D.,
Recording Secretary.

Editorial.

RELATION OF FERMENTATION TO PATHOLOGY.

Fermentation has been heretofore regarded as a process of spontaneous decompositton of organic bodies. But science now affirms with the repose of reliable certitude that fermentation is fecundation. This takes place in diminutive cells elaborated from innumerable microscopic sporrules and corpuscles.

The cellular organization of brewer's yeast has long been known, and the familiar phenomena presented by fermentable liquids when exposed to the air have long been remarked, but the fact was not observed that these fermenting liquids, generally, perhaps always, receive their leaven in the form of sporules or microscopic monads from the air.

More than half a century ago Turpin and others suspected this, but failed to demonstrate it. More recently M. Dumas directed his researches in microscopic physiology to the multiplication of cells in fermentation. In the last decade, M. Pasteur examined alcoholic ferments to determine the decomposing force, and the amount of cell activity. He next placed fermentable liquids in vessels through which currents of air could pass, and they swarmed with life. He then placed similar liquids in vessels and excluded the air and no life resulted,—no fermentation ensued. And when the air was only allowed to reach the fluid by percolating or straining through cotton, there was no fermentation. In the latter instance the cotton used for a percolator was the receptacle of myriads of living monads received from the air.

When organic matter is placed under certain conditions in which heat and moisture are essential, cell fecundation takes place. The chemical elements, which are usually Oxygen, Hydrogen, Nitrogen and Carbon, become so changed in their relations as to change the starch, sugar and gluten into new organic constituents. But fermentation varies in its processes and results with the various organic elements in which it takes place, Hence fermentation is called sacharine when starch and gum are converted into sugar. Sugar may be changed into alcohol, this fermentation is called vinous; and again alcohol may be changed into vinegar—this is acetous fermentation; and it is putrid, or putrefaction when it occurs in animal bodies, where there is decomposition of azotized substances. When this process begins in the living bo dy it is called Septicæmia, of which we shall say more further on.

When wine turns sour the alcohol it contains has absorbed oxygen from the atmosphere till it has been converted into acetic acid. Another factor in this process is a microscopic plant formed of minute globules or mycoderms which form a scum on the surface, when the wine has been exposed to the air. This scum is called "mother of vinegar," and serves to gather oxygen.

Milk turns sour because its sugar ferments and is converted into lactic acid. Next the casein of the milk ferments and forms butyric acid: this ferments too, and forms a vast multiplicity of diminutive beings—microscopic corpuscles. Starch is transformed into sugar by a ferment called "diastase," and amygdoline is derived from the bitter almond by a similar ferment known as "Syraptasis." Some of the physiological activities continually going on in our bodies, are closely allied to those we have just been considering. The saliva contains ptyaline, which changes amylaceous or starchy matter into sugar, as does diastase. The pepsine of the gastric juice is essential to the digestion of albuminous matters, and the pancreatic juice contains an element essential to the digestion of the fatty matters taken into the stomach. In fact, the whole process of digestion is but a complete process of fermentation.

And we feel obliged to present another similitude presented by human physiology. we refer to the complete harmony of living monads, whether they act their part as mycoderms in the process of fermentation, or as red corpuscles circulating in our blood; both are oxygen carriers, for which element they both have strong affinity.

Do the vital monads which are found in fermenting snbstances exist in any great abundance in the air we breathe? This is placed beyond doubt by the experiments of M. Pasteur.

But can they arise in a fermentable liquid at all, by spontaneous generation. It is certain they may and do appear in liquids under certain conditions which hold in solution organic matters. The protoplasmic fluids, as the cambium of vegetables, and the blastema of animals are prolific birth chambers of living germs. But whether these germs arise spontaneously does not affect the truth of their activity in fermentation, and in many human maladies as well.

These microscopic germs swarm in the air we breathe; they invade with baneful sport Life's hallowed sanctuary, and after death glut upon its abandoned vesture.

To the pathologist this subject is aglow with light. Vibrios and bacteria are living microscopic corpuscles. If we inject into the blood a septic liquid containing these minute thread-like beings, they multiply rapidly by fecundation in their new home, so that soon their number is myriads—the subject is then said to have *necremia*, or *septicæmia*. There is set up in the system a fateful Zymosis. The multiplication of these beings in the human and other organisms is similar to cell multiplication in barley-wort.

M. Davaine has, within the last few months demonstrated that, unlike the virus of Small-pox which appears to grow weaker, or less virulent when it passes by inoculation through many organisms, this Septicæmic blood increases in virulence by its inoculation into other organisms, as long as a drop of it is propagated from one organism to another. So that by repeated inoculations from one person to another, the virus attains such activity that one drop of the blood placed in a pint of water will so contaminate the whole mass of fluid that the thousandth part of a drop of this water, if inoculated into a healthy body will produce mortal effects, so readily and rapidly do these germs breed when nurtured in the system.

The more we examine this subject, the more important its pathological bearing. Many human maladies are now known to possess their prime elements in these germs; while many other forms of disease render the system inviting to their invasion. Carbunculosis is directly traceable to vibrios and bacteria, and beyond doubt they often exlst primarily in, or infest the system during the course of Typhoid Fever.

C.

We intend to inaugurate a Student's column as a regular department of the Record.

ALL articles intended for publication should be placed in our hands, promptly, by the 15th of each month.

WE would remind our friends that as the subscription price of the RECORD is put at such a low figure, and we are therefore at considerable expense, it is absolutely necessary in the business interests of this journal that the collections be made in advance.

WE have been informed that there are several bogus medical colleges in the city that are issuing fraudulent diplomas for a pecuniary consideration, without demanding attendance on lectures or an examination for the degree. If our information proves correct, we will make a thorough expose of the shams.

Extracts---Abstracts.

DR. Q. C. SMITH, (*Nashville Journal of Med. and Surg.*) considers the sub-nitrate of bismuth as a very efficient catarrh snuff. He says that when the disease only affects the nasal passages and frontal sinuses, it will often effect a cure if the disease is not of long standing. The mode of using it is to take a pinch of the powder, and thrust it well up one nostril, closing the other one, and take several short whiffs, liberating a portion at each inspiration. Apply to each nostril in same way quite frequently.

DR. L. D. BULKLEY, (*Detroit Review of Med. and Pharm.*) very strongly advocates the use of the "Liquor Picis Alkalinus," in the treatment of certain varieties of ekzema. The advantages claimed for it are, its ready solubility, so that it may be diluted to any extent, and the safety and convenience attending its use; for the dilution may be left to the patient, to be changed as the ever varied character of the disease demands. Its efficacy, when properly used, in checking the itching of ekzema, is not surpassed by any remedy.

THE following prescription (*Pacific Med. and Surg. Jour.*) is recommended for incontinence of urine in paralysis:

Morph. sulph.,
Veratriæ, aa gr. v.
Axungiæ, ʒ i.—M.

Rub well into the perineum three times a day.

DR. GOODELL, in the Am. Supplement to the British Obstet. Jour., (*Va. Med. Monthly*), states that in stubborn cases of after-pains, he has found nothing act so promptly as ten grains of quinine every six hours, until the ears ring—for which suggestion he is indebted to Dr. Fordyce Barker.

DR. GARABETTI (*London Lancet*) has obtained the best results from the administration of enemata of potass. brom,, in doses from one-half to two drachms in cases of obstinate vomiting attending the pregnant state; the same drug, also administered in enema, has been very useful in the hands of Dr. Laborde, of Paris, in obstinate vomiting connected with disease of the stomach, liver, and intestines.—*Med. News and Library.*

DR. J. SOLIS COHEN, (*Med. and Surg. Reporter*) in speaking of stuttering, says that in most instances, the defect will be found to be in great part mental, and to consist chiefly in a want of consentaneous action of the involuntary muscles of respiration; for here lies one of the chief indications of treatment—to secure a voluntary harmony of action between lungs, larynx, and mouth (including palate, tongue, jaw, and lips).

Book Notices and Reviews.

A PRACTICAL TREATISE ON THE DISEASES OF WOMEN. By T. Gaillard Thomas, M. D., Professor of Obstetrics, &c., in the College of Physicians and Surgeons, N. Y., etc., etc. *Fourth* edition, enlarged and revised. A handsome octavo volume of 800 pages, with 186 illustrations. Philadelphia, Henry C. Lea, 1874. (For sale by Gray, Baker & Co.)

The appearance of this work is in harmony with the excellent typography &c., which characterize the productions of Henry C. Lea's publishing house.

Without being prolix it is uniformly practical.

As compared with the former editions it is virtually a new book, and its value is much enhanced. As a text book it deserves to be placed in the foremost rank. The profuse manner in which it is illustrated, renders it an extremely valuable work for students, but we cannot refrain from expressing sorrow at not seeing the cut of M. A. Pallen's Speculum, embellishing its pages as before. So short a time has elapsed since the medical press was teeming with reviews of this work, that we deem it unnecessary to notice it further. We congratulate the author on the brilliant reception given the former editions, and bespeak for the present a like suecess.

S.

PSYCHICAL OR PHYSICAL.—By Chas. H. Hughes, M. D., St, Louis, Mo. Reprinted from American Journal of Insanity, for July, 1874.

The question discussed in this brochure is this: Are the operations of the human mind due simply and solely to physical changes, or are they the manifestations of the presence of an immaterial entity, the soul?

The author quotes at great length from Maudsley, Herbert Spencer, and others, of the so-called materialistic school, makes many assertions, advances some curious theories, which, however, he neglects to support with facts, and finally leaves the question in much the same condition as he found it.

As the substance of mind has thus far remained unknown, and there seems very good grounds for regarding it as unknowable, there would seem to be very little use of undemonstrable theories of the subject. As Maudsley observes: "To appeal to the consciousness of every man for the proof of a power within him totally distinct from any function of the body, is to beg the question at issue, seeing that it is admitted that consciousness can make no observation of the bodily organ and its functions, and cannot say, therefore, whether it is independent of them or not; to render such an appeal valid it must be proved in other ways,—proved that matter, although in the form of the most complex organization, is incapable of mental function." This the author does not even attempt to do, although avowedly combatting Maudsley upon his own ground.

To hypothecate the existence of an ideational cell or molecule, when cerebral cells are demonstrable in profusion whose functions remain unknown; to assert that the probability of the existence of such cells or molecules is as equally reasonable a conjecture as the undulatory theory of light and sound, is analogous to a suppositious digestive cell or molecule too delicate for demonstration, while we know of a glandular apparatus all sufficient for the purposes of alimentation when the proper material is supplied in sufficient quantity.

To suppose something immaterial behind the material organ of thought is exactly analogous to the supposition of an immaterial liver back of the material liver to enable it to secrete bile—the blood in either case furnishing the necessary pabulum.

To effect a reconciliation between science and religion has seemed important to many timid minds. Science is simply knowledge classified. Knowledge is a true acquaintance with facts. Can anything approach so near what we call the divine as truth? As Prof. Tyndall has said, "There is nothing the scientific mind fears so much as to believe a lie." Where then, is the conflict between science and religion.

Science does not argue the question of the existence of God or of an immortal soul. Matters of science are to be demonstrated,—matters of faith are of an entirely different class, with which science can have no dealing.

Let every one cherish his own religious convictions—they are not susceptible to scientific proof or disproof, they are a personal matter with which no one should presume to interfere.

Fear not that the truth can harm, and let error be exterminated wherever found.

W. B. H.

PROLAPSE OF THE UMBILICAL CORD. ITS CAUSES AND TREATMENT. By Geo. J. Engelman, A. M., M. D. Director of the St. Louis School of Midwives, Master in Obstetrics of the University of Vienna, etc., etc.

This is a Monograph of 76 pages, on a subject of exceeding interest to the general practitioner and obstetrician. It is not only very readable, but replete with valualbe statistical information.

The doctor handles his subject in a masterly manner, and makes several new departures from the generally accepted views regarding the causation and treatment of the accident under consideration, as will appear in the following quotations:

"Some stress is to be laid on abnormity in the shape and position of the womb, much more on twin births."

"More dangerous than any of these is the contracted pelvis, which I have proved by measurements and numbers to be the main cause of prolapse of the funis, directly and indirectly. A fact hitherto generally accepted, but never as yet clearly established. Another such vague, general statement, that the prolapse is by far more frequent among multiparæ than principaræ, our cases disproved * * *

"The law governing the location of the prolapse is of importance, and here for the first time touched upon: it will I trust be verified by the investigation of other observers."

"In the treatment the high importance of the postural method has been developcd, more as an adjuvant, however, than as a method in its self of dealing with prolapse."

"Version is comparatively the most successful of all operations, and should be more frequently resorted to when any choice of method is given, as in head presentations; the application of the forceps and reposition of the cord are less to be relied upon: but whatever may be the course determined upon, it must be borne in mind that the success of all operations, by which we seek the preservation of the child, whose life is threatened by compression of the prolapsed cord, is in a measure dependent upon the judicious use of chloroform, its application to full surgical anæsthesia."

S.

A CONSPECTUS OF THE MEDICAL SCIENCES: comprising a Manual of Anatomy, Physiology, Chemistry, Materia Medica, Practice of Medicine, Surgery, and Obstetrics, for the use of students. By Henry Hartshorne, M. D., Prof. of Hygiene in the University of Penn., etc., etc. Second edition, enlarged and revised. With four hundred and seventy-seven illustrations, Phila., H. C. Lea, 1874. (For sale by Gray, Baker & Co.)

If students will use *helps* in the shape of Vade Mecums and Compendiums, we know of no better one than this of Hartshorne, for it is not the work of a mere compiler, but of a vigorous and original medical thinker. This new edition contains all that is recent in the several branches upon which it treats, and has been brought up to the times in every respect.

Miscellaneous Notes.

MOONLIGHT THERAPEUTICS—The North America Jonrnal of Homœopathy is published quarterly by Boericke & Tafel, in New York, 145 Grand Street, in San Francisco, 234 Sutter street, and by Henry Turner & Co., London and Manchester. The editor is "S. Lillenthal, M. D. No. 230 West 25th street, New York." We give these particulars to show that the publication is undoubted authority, and that the quotation we are about to introduce belongs to genuine homœopathy- In the number of May, 1874, is an article from the pen of S. B. Higgins, M. D., Charlotte, N. C., entitled "Solar and Lunar influences." The article appears among the original papers, without comment. Omitting a few paragraphs at the commencement, on the subject of the influence of moonlight on fishes, etc., we copy the rest of the paper literally, with italics just as we find them, leaving comment entirely to our readers.

"When the moon is nearly full, many persons who lie down in the open air, exposed to its rays, suffer pains and œdema of the parts exposed, on the ensuing day, and sometimes they lose their reason when the moonlight is concentrated on the head; hence, no doubt, the word "lunacy" or "lunatic," or moonstruck. I have treated several cases with the remedies recommended in the manuals, but never with rapid success until I had discussed the subject in my own mind awhile, and argued, thus: If the moonlight causes the pain and œdema, there must be virtue in moonlight to *cure* it; so I exposed a glass halffull of pure water to the direct and reflected light of the moon for three or four hours; at the end of this time I poured the water into a perfectly clean bottle, and shook it well for a moment or two. The next day I had a case of œdema of faee and hands, with violent pains in the swollen parts, of a neuralgic nature, in a stout negro, of about 35 years ofage, who had slept the previous night in the open air, exposed to the rays of *the full moon*. I gave him about two ounces of the prepared water from the bottle marked "Luna" with directions to take a spoonful every hour till relieved—this at 8 A. M.; at 12 M., and after having taken three doses of the "Luna" he was relieved of all pain, and at 4 P. M. *the œdema had entirely abated.* After such marked success, I treated several similar cases with "Luna" with the same unvarying quick relief, Reminding my friend, the Doctor, of these cases, I asked him if he had noticed whether Mrs. N. N.'s sufferings were aggravated at the time of full moon. This he had not noticed, but made a note of it to report at a future conference. About a month later, we met one evening, and he said two days previously, (*the day after full moon*) Mrs. N. N. was taken suddenly with the most violent attack of metorrhagia she had ever had, and her pains were most excruciaiing. Then I replied, we must have found the key to the whole enigma; if I am right, moonlight causes the disease, moonlight will cure it—give her *Luna.* A glass was prepared that night and sent to her next morning, with directions to take a tablespoonful every hour till relieved; at the *third* dose thc pains and flow ceased as if by magic. The ensuing month pains and flow presented as usual, but *two* doses relieved entirely. A month later, pains and flooding again, but a single dose sufficed this time, and the month following, menstruation was normal—no pains or excess of flow. Thus, this patient, after two years suffering and agony, was restored to perfect health. Three years afterward there had been no relapse. After her cure, she remembered distinctly that every time she sat exposed to the moonlight at the full of the moon her sufferings were in every way aggravated; when she kept in the house at this epoch she suffered much less—now she sits exposed to the moonlight for three or four hours with impunity.

"We prepared *Luna* and potentized it up to the 13th potency—a powder of which I have furnished to Dr. Samuel Swan, 13 West Twenty-Eighth street, New York, and it will soon be potentized up to the *cm* potency by his new potentizing machine, just finished. I have used it for *all cases of abnormal menstrual troubles which are aggravated at the period of full moon*, at the 6th cent. potency, without having, as yet, to record a case of failure. Relating the preceding case to Dr. Swan, in December, 1872, he prepared some Sac. lac. by exposure to the concentrated rays of the sun, and has had this potentized by Dr. Fincke up to the *cm*, and with different high potencies has cured several cases of head-ache where patients could remember having suf-

fered at any previous time *by exposure to the sun*. I believe in such cases, which do not yield readily to other remedies, it will prove a speeific; and, as such, of great value in our Materia Medica. Dr. Fincke has potentized *Luna* up to the *cm* potency; but this is from the moonlight in our climate, which, I think, may possibly be less powerful than the preparation I brought from South America; but as yet, I have not had any opportunity of testing it so as to institute any comparison between the effects developed by the one and those developed by the other.

Yours fraternally,

S. B. HIGGINS.

Pacific Journal—The Clinic.

BELLEVUE HOSPITAL.—The following gentlemen have been removed from the Medical Board of this Hospital: Drs. Isaac E. Taylor, L. A. Sayre, J. J. Crane, J. W. S. Gouley, Fordyce Barker, Frank H. Hamilton, Alex. B. Mott, T. M. Markoe, Austin Flint, Jr., Wm. Polk, W. T. Lusk, and E. G. Janeway. What does this mean? Where are the men to fill their places? Is not this an excellent proof of the great wisdom of our legislators?

We regard this as the most forcible reply to all who propose the placing of our hospitals, schools, etc., in faet, the profession itself, under the protection of those who are chosen by the masses to govern, under the name of a republic.—*Med. and Surg. Reporter.*

IT has been recommended to use electricity in the treatment of cholera infantum. Dr. O'Reiley, of Louisville, applies the positive pole to the upper part of the sympathetic and pneumogastric nerves in the auriculo-maxillary fossa, and then Duchenne's wire brush or negative pole to the region of the stomach, liver, and small intestines, until the skin is quite red.

HOME NEWS.

MEDICAL STUDENTS, generally, seem to appreciate the clinical advantages offered in St. Louis, as both the Colleges promise to have large classes.

MESSRS GRAY, BAKER & Co., and the St. Louis Book and News Co. have an unusually fine assortment of medical books on their shelves this season.

PROF. MICHEL will illustrate his lectures on Histology this winter by means of numerous photographic transparencies, illuminated with the oxy-calcium light.

DRS. DUDLEY, PREWITT, AND WALL are candidates for the position of Coroner on their respective tickets, as each of them is eager to serve his country, we only wish it were possible for them all to be elected.

DRS. HAZARD, BAUDUY, HUGHES, STEVENS, AND ENGELMAN, were appointed by Judge Primm, a commission to examine into the alleged unsoundness of mind of Cronenbold, on trial for murder. The medical gentlemen named, are unanimous in the belief that he was not responsible for his actions.

At the annual meeting of the St. Louis College of Pharmacy, held September 28, the following officers were elected for the ensuing year:

CHARLES HABICHT, President.
J. M. GOOD, Vice-President.
CHARLES L. LIPS, Treasurer.
E. P. WALSH, Secretary.
WM. H. CRAWFORD,
C. K. JONES,
CHARLES BANG,
F. H. CRAWLEY,
WM. R. GRANT,
} B'rd of Direct's.

It affords us much pleasure to announce that this institution is in a flourishing condition, the prospects for the coming winter session being quite flattering. The faculty of the college remains unchanged, being

THEO. FAY, M. D., Prof. of Chemistry.
OTTO A. WALL, M. D., Prof. Materia Medica.
HUBERT PRIMM, Ph. D., Prof. of Pharmacy.

TO MEDICAL STUDENTS.

As it is of great advantage to students attending lectures, to review frequently, and in the class, a *Quiz Class* for that purpose has been organized, with the consent and approval of the Faculty of Missouri Medical College.

The object of the Quiz will be to take the students over the ground of the different lectures in a thorough review, by a system of close questioning, so as to make them familiar with the subject-matter of the lectures to a degree not to be obtained in any other way.

As stated in the College announcement, the Quiz will be also of *special* advantage to second-course students, by preparing them for the final examinations.

The examination will be conducted at the College, commencing with the Regular Course of Lectures, and continuing throughout the session, to-wit:

Chemistry—Prof. L. J. Deal; Clinical Medicine and Principles of Diagnosis—A. B. Shaw, M. D.; Physiology and Diseases of Children—J. P. Kingsley, M. D.; Gynæcology and Midwifery—M. Yarnall, M. D.; Anatomy—C. A. Todd, M. D.; Psychological Medicine and Diseases of Nervous System—W. B. Hazard, M. D.; Surgery, Geo-Homan, M. D.

The fee for the entire course will be ten dollars, or three dollars each for the difierent tickets.

J. P. KINGSLEY, Sec'y,
802 Washington Ave.

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Graduation Fee	25 00
Demonstrator's Ticket	5 00
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Number of Matriculants last session, 252; number of Graduates. 86.

ROBERT BARTHOLOW, M. D., *Dean*,
W. W. SEELY, M.D., *Secretary*.

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ALCOHOL IN THERAPEUTICS.

BY WATER COLES, M. D., ST. LOUIS.

At this particular juncture the uses and abuses of alcohol, as it exists in the various spirits, wines, malt liquors, &c., with which we are all familiar, is a subject which is discussed with much interest, both in its political and social, as well as its scientific bearings. As in all other questions of social and political economy, we find every extreme of opinion. Fanaticism, however, never leads to truth, and is not the banner under which science marshals its votaries to victory. Hence, it is only in proportion as the medical profession has lost sight of the beacon lights which science here and there holds out for its guidance that it has diverged from its teachings in reference to the therapeutic value of this important agent of our meteria medica. We say "important agent," because, if it had no other uses, it would be indispensable to the physician and apothecary, entering as it does into a large proportion of all the medicines which we prescribe or dispense.

Under the influence of the rather sudden revolution in the treatment of disease, which the teachings of such men as Todd, Bennett, and others, have wrought, it is natural that alcoholic stimulants should assume a somewhat exaggerated prominence, such as has been doubtless accorded to them in too many instances. Nor is it strange that the pendulum of the professional mind is beginning already to evince a tendency to swing back to a point equally removed from the real goal of conservatism and truth.

In dealing with this question we propose to treat its *moral* aspect as a purely secondary consideration, which no more legitimately enters into a scientific discussion of the properties of alcohol, than in the case of opium, belladona, arsenic, or any other substance in which lurks life or death, according as it is used rationally or irrationally.

Before entering into a discussion of the therapeutic value of alcohol, it is well enough to sift the many diverse views of scientists as to its physiological behavior in the system. Having nothing in the way of original research to offer, we only select such authority as seems most clearly and satisfactorily to dispose of the various points at issue under this head. In studying the relation of alcohol to the system, it is well to keep in mind its chemical character; it is a hydro-carbon—its formula being C4, H6, O2. When a person takes a moderate dose, it is quickly absorbed, if the stomach be empty—a part being taken up as alcohol whilst a portion is doubtless broken up by chemical reaction before leaving the stomach. That portion entering the circulation is quickly distributed throughout the body. If the dose be small, (under an ounce) it is completely consumed by combustion or otherwise in the system, since Dupré, Parkes, Wollowicz and others concur in stating that fully an ounce of alcohol can be ingested before any material quantity is eliminated either by the lungs, skin or kidneys. (Sydenham Reports, 1871–'72, p. 18.) When over an ounce is taken, we have more or less heat and flushing, together with its elimination from the skin, lungs and kidneys, in quantities variously estimated by different authorities. The amount thus excreted is very much smaller, however, than is generally supposed. Bouchardat and Sandras go so far as to say that absolutely none is eliminated save a little by the lungs. But since, according to the highest computation, only sixteen per cent. is eliminated, (Subbotin,) the question arises: what becomes of the other eighty-four per cent.? As before remarked, it is highly probable that a portion is oxidized (forming water and carbonic acid) before leaving the stomach, whilst the remainder is undoubtedly consumed in the body. If this view be correct, the conviction is inevitable that alcohol is capable of subserving some of the purposes of food in the system. The argument sometimes urged against this proposition, viz: that "since alcohol never enters into normal tissue, therefore it cannot be considered food," strikes us as extremely superficial and fallacious. Ordinary aliment is divided into *nitrogenous* and *hydro-carbonaceous*, the former for the most part keeps the machinery in repair, whilst the latter furnishes the fuel to run it. Neither is capable exclusively of supporting animal life; it is the proper harmony between the two, and their adaptation to the varying wants of the body which is the essential point in healthy alimentation. And right here, we

take it, is the key to the grand secret of the good or evil of alcohol either in health or disease. In health our ordinary food is sufficient to keep all the functions of the body in good working order, the supply being equal to the demand. A potation of alcohol breaks up this harmony by throwing more carbonaceous material into the circulation than it needs, or can dispose of. Hence we argue that alcohol (apart from its injurious effects upon digestion) is unnecessary and hurtful to a healthy person. On the other hand, in many cases of disease, it aids disordered nature in restoring the equilibrium between waste and repair—not by positive reparation, but by economizing waste in the tissues until the crisis is over.

Like other substances of a similar chemical composition, alcohol is readily metamorphosed, and it is this very property which renders it powerful for good or harm when taken into the system. When, as we have said, the equilibrium between the nitrogenous and carbonaceous ingrediants of food is properly adapted to the wants of a sound body, in which there is a healthy adjustment of nitrogenous and calorifacient material, there is no need of alcohol in any form, and so long as the quality and quantity of food remains the same, and no acute disease or other disturbing influences intervene to change the relation of waste and repair, the continued potations of alcohol must inevitably prove injurious, by overtasking the excretory organs, and forcing upon the system a surplus of combustible material, which deprives the tissues of the oxygen essential to health. If this course of life be persevered in, the consequences become apparent in a general impairment of the histological elements of the body, such as fatty and granular degeneration of various organs, congestions, obesity, &c. It is only, then, by supplying a temporary *need* in the system that alcohol can be claimed as beneficial to a healthy man. This call of nature for extra fuel is generally made known by the natural appetite, in the relish with which certain articles of diet are taken under variations of exercise and climate. We all delight in many rich dishes in winter, which would seem unpalatable in summer.

It is not impossible that many portions of our ordinary food may, by a slight chemical change, go to form alcohol in the system. Dr. Inman, in a paper read before the British association, makes the remark—approved and quoted by Stillé—that "nature has provided in the salivary glands, the liver, and the lungs of every animal an apparatus for converting all food, especially farinaceous food, into alcohol, and we have no evidence that such conversion does not take place."

In the treatment of disease alcohol is employed with two objects in view. First—As a direct stimulant to the nervous system, exciting the heart and equalizing and sustaining the circulation. Second—As an economizer of waste, by stealing away oxygen from the tissues, and thus saving them from the ravages of fevers and other disintegrating influences. The first proposition needs no argument, and the second is scarcely less patent to a thoughtful mind, and quite conclusively demonstrated by the experiments of Hammond, Böcker, Davis and others, wherein it was found that under alcohol the carbonic acid gas expelled by the lungs fell short, the fæces were diminished, urine reduced, and its urea and fixed salts diminished. Thus it will be seen that science as well as experience teaches that alcohol is a valuable aid to the physician in sickness, and that it is frequently his main stay and dependence, in such cases, for example, as collapse,* shock, and extreme and sudden prostration, where we employ it chiefly as a stimulant. In malignant fevers, such as the puerperal, typhus, diptheria, and, indeed, in all acute wasting diseases, it is indicated not only as a stimulant, but also as a food, in the sense in which we have employed the term; *i. e.*, it supplies a want in the system, affording food for oxygen, and thus shielding the tissues from destruction. If the foregoing propositions in regard to the physiological properties of this agent are correct, and they are generally sustained by authority, the necessity of alcohol in any given case, as well as the quantity and frequency of its exhibition, must of course depend on the judgment of the practitioner. With this comprehensive view of alcohol, its chemical composition, and its physiological behavior in the system, it is unnecessary to consume time in discussing its applicability to special diseases, save in a few instances where particular caution is necessary. It should always be remembered that there is a point beyond which its administration will produce

* In collapse from cholera alcohol is a poor reliance, in fact, does no good, since it is not absorbed, and excites vomiting.

excessive and pernicious. There are certain diseases, such as capillary bronchitis, pneumonia, congestions of liver and brain, &c., in which we would by no means employ alcohol, notwithstanding the feebleness of the patient, as freely as we would in septicænnia. Whenever respiration is seriously impaired we give alcohol cautiously. In pneumonia we rely mainly on quinine, beef, tea, milk, eggs, &c. Whilst conceding the value of alcoholic stimuli, it won't do to expect too much of them, under any circumstances; as Chambers has well said, they cannot, and should not, take the place of aliment. They are intended only to bridge over a crisis, and allow time for the appropriation of *constructive* alimentation, which is found only in nitrogenous compounds. We can but believe that some of the followers of Todd have erred in overdosing with alcohol, by which the stomach is kept charged with it, since it is a physical fact, susceptible of easy demonstration, that alcohol retards the digestion and assimilation of albumen. Hence, I prefer never to give beef tea *with* brandy, and this is doubtless the reason why egg-nogg so soon disagrees with feeble patients.

In this connection, we will say a word in regard to the exhibition of alcohol to consumptive patients. That its moderate use is beneficial to some consumptives is every day demonstrated, and for the same reason that cod liver oil or cream benefits them. On the other hand, there are many consumptives—more than is generally supposed—to whom neither of these remedies is applicable for the simple reason that they are not digested, and not unfrequently disqualify the already enfeebled stomach from digesting ordinary food. Sometimes a patient can take one and not the other. But if either alcohol or cod liver oil disagrees, it is folly to enforce its use.

2344 Pine street.

Clinical Reports.

CLINICAL GYNÆCOLOGY.

CLINIC OF PROF. T. L. PAPIN, ST. JOHN'S HOSPITAL—REPORTED BY GEO. E. M'COSH, M. D.

CASE I.

Case of Procidentia (complete) and Cystocele—Amputation of Cervix and Elptrorrhaphy.—Miss Lizzie S., born in the United States, aged twenty-four years and unmarried, applied for relief about the middle of October, 1874. The patient is a small but well developed woman, dark complexion, but evidently very anemic. Her occupation, she says, has been as house servant. Her history of the case is, that four years ago, while lifting some heavy articles of furniture, she felt a sudden giving way of some portion of the pelvic viscera and pain in the lower part of the spinal column. Her discomfort was further increased by a "dragging" sensation in the womb accompanied by "bearing down" pains in the pelvis, and severe pain in the left ovary, and neuralgic pains shooting down the thighs. She gradually grew weaker, though she managed, in some way, to remain at service. After about one year she found that a small conical tumor began to protrude between the labia. She still worked on another year, and when finding herself unable to continue at work in her present condition, she sought the advice of some physician in San Francisco. He correctly diagnosed her case as "falling of womb," and very properly introduced a Hodges' pessary to relieve the malposition. So long as she wore the supporter she was very considerably better of her troubles, but on removing the pessary the whole train of distressing symptoms recurred, and her general health constantly grew worse. When admitted she had profuse leuchorrhœa intermitting with regular, though scanty, catamenial flow. On November 1st, Dr. Papin, assisted by Drs. Robinson, Yarnell and McCosh, operated for the relief of this young woman. After the patient had been fully anæsthized she was placed in the left lateral position, and a Pallen's self-retaining speculum inserted. After dissecting back anterior and posterior flaps of mucous membrane with which to cover the cervix after amputation, about one inch of the hypertrophied cervix was removed with scissors, and the womb, on measurement, found to be less than two and one half inches in depth. The depth before the operation was about three and one half inches. The operation of elytrorrhaphy was then performed for relief of the cystocele by a pyramidal section of the anterior vaginal wall, surrounded by a strip carefully denuded of mucous membrane. The apex of the pyramid was below and the base anterior to the cervix uteri. The lateral denuded strips were brought into apposition by three silver wire sutures, and two sutures were used to retain the flaps of mucous membrane over the amputated cervix. There had been but little hemorrhage during the operation. The vagina was tamponed with cotton saturated with glycerine. Nine days after the operation the sutures were removed and union found to be complete. The patient, since that time, has steadily improved both in health and spirits. She is now well and ready to begin her duties.

CASE II.

Case of Retroversion and Partial Procidentia Uteri, and Elongation of the Cervix.—Miss Lena P., born in the United States, aged forty years and unmarried, came to the clinic February 18, 1873. She says that about eight years since she found the womb partially protruding between the labia. The patient is a tall well developed woman of leuco-phlegmatic temperament. Has worked hard in caring for a large house let as furnished rooms. She has been treated by several physicians, and when she came to the clinic was wearing a Cutter's pessary. On March 9th the patient was brought under chloroform and placed in the left lateral position on the table. Dr. T. L. Papin then removed one aud one fourth inches of the cervix and covered the stump with flaps of mucous membrane secured by four silver sutures, the operation occupying one hour. The vagina was tamponed with cotton saturated with glycerine, a full opiate was administered, and patient placed in bed. On March 19th the sutures were removed and only partial union was found, and the patient returned to her bed. On the 28th the cut surfaces were all healed and tonic remedies ordered. The patient having complained of pain at the anus, a fissure was discovered and the sphincter-ani was forcibly lacerated. A Hodge pessary was inserted to relieve the retroversion. The treatment afterward consisted of general tonics, saline purgatives in small doses were ordered as needed to regulate the bowels. After a few weeks the patient had wholly recovered her health and was discharged cured.

CASE III.

Case of Retroversion and Cervical Hypertrophy.—Mrs. Ellen H., aged thirty-six years, came to the clinic July 28, 1873. The patient has never been pregnant though married nine years. She complains of pain in the lower part of the spine and a dragging feeling in the whole pelvis. The catamenia are regular but sometimes profuse, at others scanty in quantity. Bi-manual palpation discovers an abnormally large womb about three and one half inches in depth. The cervix is very tender to the touch. Examination with the speculum shows a highly congested and considerably elongated cervix pressed forward against the anterior vaginal wall. The exploring probe enters the cavity of a retroverted uterus. The diagnosis is retroversion with hypertrophy of the cervix. The treatment was sol. iodine locally, with Hodge pessary to remedy the uterine displacement, and vaginal injections of warm water twice daily to relieve congestion and wash away the secretions. General tonics were given by the mouth and generous diet ordered. This treatment was continued till November 8th, when the absorption of the cervical hypertrophy not having progressed in a satisfactory manner, about three-fourths of an inch of the cervix was removed and the stump covered with flaps of mucous membrane secured by silver wire sutures. Seven days after operating the sutures were removed and union found complete. Hodge's pessary was again introduced to relieve the uterine supports until they acquired their normal tonicity. General tonics were ordered. After two months the pessary was removed and the womb being in position and the patient's general health much improved, she was discharged cured.

REMARKS.

These three cases of amputation of the uterine cervix and the rapid recovery of the patients, are accumulative evidence that this operation is not nearly so formidable as some writers would have us believe. The longest time any one patient was confined to her bed was nine days, and the speedy relief of distressing symptoms are sufficient to warrant the practitioner in operating, and to compensate the patient for all pain arising therefrom, and the inconvenience of a temporary confinement in bed.

LOCAL APPLICATION OF VINEGAR IN PRURITUS AND PRURIGO.

BY W. A. HARDAWAY, M. D.,
Clinical Lecturer on Diseases of the Skin, Missouri Medical College.

In the last edition of Watson's Practice of Physic, we find in a foot note to the article on Prurigo, a letter from Dr. Bowling, of Tennessee, recommending vinegar as an almost invaluable agent for the relief of the intolerable itching incident to that disease. Before quoting the substance of his remarks, it would be well to inquire briefly into the general acceptation of the terms prurigo and pruritus.

Prurigo is a chronic *disease* of the skin characterized by the formation of pale, red, itching papules (NEUMANN), and with various other secondary alterations due in a great measure to the irritation set up by scratching. Pruritus, on the other hand, is "a state of itching of the skin," as accompanying other skin affections, the result of the presence o pediculi, or as the expression of certain morbic conditions of the blood or of the nervous system. Therefore prurigo and pruritus are not to be confounded as one, or as two distinct *diseases;* but it should be borne in mind tha the one is a malady *sui generis*—the other : symptom of widely varied conditions. I have been led to make this digression from the fact that these terms have been connected in the most inextricable confusion, and applied indiscriminately. However, the thing to be reme-

died, the cause of the patient's appeal to you, is the itching, whether that state be dependent upon an essential disease of the skin, as prurigo, or to a local or general pruritus due to other influences. Now Dr. Bowling declares that vinegar, applied locally, exerts the happiest effects in prurigo, and I have found it to be of especial benefit both in this disease and for the relief of itching generally. Dr. Bowling directs that the parts be sponged twice a day—night and morning—with the best *cider* vinegar, and that the citrine ointment (ung. hydrarg. nitrat.) should be smeared over the surface after the vinegar has dried. He says, moreover, that he generally produces a cure within a week, which is certainly a most gratifying result, as prurigo is one of the most intractable diseases with which the physician has to deal. Although my experience with this remedy is limited, it may prove of service to call attention to the following from a number of cases:

CASE I.

Prurigo Senilis.—J. M., aged fifty-five, consulted me for an intense and intolerable itching confined to the legs, around and above the ankles. Upon inspection I discovered the usual lesions of a prurigo—pale red papuls, with little specks of dark blood at their apices, deep and painful rhagades, and illy nourished skin. He had used all manner of lotions, ointments, etc., without avail. Ordered him to sponge the parts twice a day with cider vinegar, and after it had been allowed to dry, to put on the citrine ointment. I did not see him again for two weeks, when he reported himself as cured; at least he no longer suffered from the harassing pruritus.

CASE II.

Pruritus of the Scrotum.—Dr. Garnett consulted me concerning a patient under his treatment, who suffered from this very common form of pruritus. I advised application of the citrine ointment and vinegar. Here are the notes of the case as furnished by him:

J. R. M., aged thirty-seven, was first attacked May 1st; no treatment until July 15th, prescribed:

℞ Acid. hydrocyanic. dilut. ʒ ii.
Bismuthi subnitratis, ʒ ii.
Liquoris calcis, ʒ vi.
S: use locally. M

He was also directed to use carbolized oil. Used these remedies five days without effect. July 20th, prescribed strong apple vinegar and citrine ointment. Patient did not obtain the ointment, but used the vinegar alone. He was entirely relieved in five days.

CASE III.

Pruritus Hiemalis of Duhring.—This hitherto undescribed form of pruritus is an affection, according to Dr. Duhring, which always occurs in the autumn, or even as late as the winter season, characterized by a peculiar itching of the skin generally confined to the lower limbs, which supervenes suddenly, lasts a variable time, but commonly disappearing during the cold months, and attacks both sexes and all ages. There is no primary eruption of any sort in this affection, but if the trouble is long continued or severe, the secondary lesions are well marked. The itching comes on at night, and is sometimes so severe as to prevent sleep, but as a rule, not returning until the next night. These attacks frequently recur during the following season. It will be seen that my case presents very similar features: E. H., aged about thirty years, consulted me the first part of last month for this trouble. He said that every fall he was subject to attacks of pruritus, which generally lasted until cold weather. He stated that the itching during this attack was almost unbearable, that it disturbed his sleep and caused him the greatest annoyance. Upon inspecting his legs I discovered no papules, but found the skin harsh, and bearing evidence of the violent use of the nails. He was prescribed bromide of potassium at bed time, and directed to sponge the itchy places very thoroughly with apple vinegar; the citrine ointment was not ordered. He improved immediately after the first applications, and within a week was discharged well.

It will be noticed that in the last two cases the *Unguentum Hydrargyri Nitratis* was not employed. I am certain that the vinegar is as beneficial alone as when combined with the mercurial; but I suppose that in a fair proportion of Bowling's cases the latter acted by destroying the pediculi, which are so commonly exciting causes.

At my suggestion Prof. P. G. Robinson used a similar treatment to the one mentioned in a number of cases of prurigo and pruritus, and, so far as reported, with excellent success.

My only object in reporting these few cases was to call attention to a remedy for a most obstinate complaint, which no less an authority than Dr. Bowling had found of service. My observation is too limited to allow me to put Dr. Bowling's estimate upon this remedy, and, besides, from experience I am not prone to regard any remedial agent as of universal application; but still I find from my own cases, and also from the results obtained in a number of cases treated by other physicians on this plan at my suggestion, that cider vinegar applied locally in prurigo and pruritus has proven of decided benefit so far as tested.

I do not affirm that vinegar would be indicated in the pruritus attending ekzema and diseases of that class, but it seems to be particularly applicable to those states of itching of the skin depending upon general causes, and in prurigo itself.

2118 Eugenia street.

Miscellaneous Reports.

CONFERENCE OF THE COLLEGES OF PHARMACY.

A Paper read before the Board of Trustees of the St. Louis College of Pharmacy.

BY J. M. GOOD,
Examiner in Pharmacy for the City of St. Louis.

GENTLEMEN:—I have read carefully, and with interest, the manuscript copy of the proceedings of the Conference of Teaching Colleges of Pharmacy in the United States, held at Richmond, Va., in the evenings of September 17th and 18th, 1873.

The subjects considered by those present were:

1. Submitting matriculants to a preliminary examination in the fundamental branches of a common English education.

2. The number of years experience required to make a person eligible for graduation.

3. The *title* or *degree* to be conferred upon graduates.

4. The propriety of having the minutes of this conference printed; the expense to be borne by the different colleges of pharmacy.

The first subject, after almost an entire evening's discussion, was laid on the table. All seemed to appreciate, fully, the advantages of an early education to the possessor, yet few were willing to close the doors of our colleges to any if they had sufficient mental training to admit of their studying theoretical pharmacy with advantage to themselves.

The plan of submitting matriculants to a preliminary examination has been adopted by the Maryland College of Pharmacy, and as far as tried, it appears to give satisfaction to the members and officers.

In the Massachusetts College of Pharmacy they have adopted the plan of dividing the class into juniors and seniors, the juniors being obliged to pass an examination before entering the senior class, and in this examination the penmanship and orthography are taken into account as well as their answers to questions. Our Boston friends consider this a step in the right direction and appear to be pleased with the workings of the plan. Prof. Procter gave as his opinion, that young men who do not possess the rudiments of an ordinary education should be dissuaded from entering the drug business.

2. On the amount of experience required before graduation: On this subject the opinion that prevailed was that at least *four years'* experience should be required, two of which shall have been spent in stores where physicians' prescriptions are dispensed.

3. On conferring titles or degrees upon graduates: In the discussion which ensued all were in favor of conferring the title of *Graduate in Pharmacy only*, upon those receiving diplomas, except Mr. Oldberg, professor of pharmacy in the National College of Pharmacy of Washington, D. C.

This college has adopted the degree of *Doctor of Pharmacy*, to be conferred upon its graduates. He defended this institution, in the position it has taken, with earnestness and spirit, but he failed to convince his opposers of the correctness of his reasoning, and he, in like manner, refused to be convinced by them that his arguments were fallacious. Mr. Markoe is disposed to consider pharmacy an *art* rather than a *profession*, and proposes the titles Master of Pharmacy, or Bachelor of Pharmacy, as preferable to the term *Graduate*, and not liable to the confusion which the title *Doctor* would cause, as by universal custom and common consent the *practitioner* of medicine, not the *compounder*, is called *Doctor*. He would reserve the title *Doctor* of Pharmacy to be conferred, as a reward, upon those who have acquired high attainments in the profession. Let it be an *honorary* degree of like import to D. D. and LL. D.

The following preamble and resolution were finally adopted by the convention, the vote being taken by colleges, each having one vote, and each voting *yes* except the National College, which was excused from voting for obvious reasons:

WHEREAS, The National College of Pharmacy at Washington, District of Columbia, has adopted the title of Doctor of Pharmacy for its graduates; and whereas, in the opinion of this convention this course is calculated to cause confusion in the meaning of the title and conflict with its use as a merely honorary distinction, as heretofore used, therefore

Resolved, That we, as delegates from the Teaching Colleges of Pharmacy in the United States, protest against this as an innovation, detrimental to the best interests of pharmacy, and respectfully ask the authorities of that college to conform to the usages of the other colleges in the United States in regard to the title conferred upon graduates.

CONCRETIONS IN THE TRANSVERSE COLON.

The following interesting case was reported to the St. Louis Medical society, Nov. 21st, by Dr. C. H. Hughes, for Dr. V. A. Willis, of Price's Branch, Mo.:

"Mrs. P., aged about thirty-two years, ten years married, mother of three or four children, had prior to and during the last pregnancy, 'heart-burn,' (as she told me,) for the relief of which she took chalk, magnesia carb., etc., etc.

Some months after confinement she began to suffer pain in the transverse colon toward the left side. This pain became more and more severe. She walked half bent, being unable to assume the erect posture. Pain much more severe for an hour or two after meals. Bowels constipated; very excitable, emaciated, and after the second year hectic.

I saw the lady in the fourth year after the confinement spoken of. She had come from her home in Florissant, St. Louis county, to my county for change of air and to visit relatives; the trip on the cars prostrated her, and her brother-in-law, with whom she was stopping, called me to see her.

I found her in bed, on left side, knees drawn up and body bent forward unable to move. At first she would not allow me to touch the bowels at all, but I finally succeeded in making an examination, which revealed a tumor at the point before stated, very hard and painful to the touch. Being satisfied that there was a foreign substance in the colon, I gave a large dose of aloes soc. and left morphia to be given as soon as the aloes had moved the bowels. I heard no more from the case for two days; on the third day I was astonished to see my patient driving to my office, saying she was *quite well*, and bringing with her the concretion before you and two others, one much larger. Since the expulsion of the concretions four and a half years have elapsed and the lady has had fine health.

Mrs. P. had been under the care of a number of medical gentlemen for four years previous to the time I saw her, some of whom told her she had aneurism of the splenic artery."

HÆMORRHAGE—TRANSFUSION.

St. Louis Medical Society, Nov. 15.

Dr. Gregory reported the following interesting case:

A man, aged thirty, was struck by a rail road car, receiving injury of the head, neck, and fracture of an arm and the lower jaw. The latter being broken in two places, was very troublesome. The Doctor applied a fracture cup to the chin and retained it in position and the fractured extremeties in apposition by means of a bandage of his own designing.

A double-headed roller was used. Beginning under the jaw it was carried up each side of the face to the forehead where it was tied and carried several times around the head. Previous to its application a short piece of bandage had lain over the top of the head, passing from before backward, the ends of which were now tied on top of the head.

The action of this bandage is to make traction upward and forward.

A tumor was observed behind the angle of the jaw, supposed to be the result of contusion. The arm was dressed and for twelve days the patient did well. On the thirteenth the Doctor was called and found free hemorrhage from the patient's mouth. The tumor had also increased in size. It was considered necessary to ligate the common carotid artery on the injured side to control the hemorrhage.

The incision being made through the tumor, it was found to contain some pus and clotted blood, which were turned out and the artery secured.

Patient rallied for a week, when hemorrhage again occurred, but this time from the incision, but when the Doctor saw him the ligature had disappeared and the bleeding had ceased. Occurring again, however, in a few days, it was controlled by compression in the region of the inferior maxillary artery, from which it was inferred that the blood came from this vessel.

He now decided to cut down upon and remove the ramus of the inferior maxilla on the injured side and tie the inferior maxillary artery. The bone was exposed, cut through and turned aside, when from inability to longer compress the artery, alarmingly profuse hemorrhage supervened and the patient sank rapidly. The bleeding was arrested and blood transfused from his brother's arm to the amount of six or eight ounces, but he did not rally. At the autopsy a deep sinus was found leading down to the vertebral artery from whence it is supposed the hemorrhage occurred.

To Remove Rings from the Finger.—Dr. William Hauser, Bartow, Ga., who, during the late war, had a quiz class in the Medical College of Virginia, states in the Atlanta *Medical and Surgical Journal*, October, 1874, that many years ago he learned from a young Charleston doctor how to remove a gold ring. Wipe the finger perfectly dry, and then pour quicksilver over the ring. After waiting a few moments, a sudden pressure upon the ring with the thumb and fore-finger will snap it.

Dr. Hauser suggests the following method to remove a brass ring: Pour melted bees-wax all over the ring and enough to run under the ring and to fill up the gaps between the ridges on the afflicted finger. With a pen-knife cut out a line, as it were, of wax across the ring; and upon the ring thus exposed, pour a drop or two of either of the mineral acids—preferably sulphuric acid. Let this stand until the copper and zinc (of which brass is composed) are combined with the acid. The ring can then be broken by pressure with the fingers.—*Va. Med. Monthly.*

The Confessional having been mentioned as among the predisposing causes of insanity, by Dr. Hardy, one of the professors in the Paris School of Medicine, he was taken to task for it by an orthodox journal; whereupon, at his next lecture, the students in the school received him with a triple round of applause.

Missouri Clinical Record.

W. A. HARDAWAY, M. D., ALEX. B. SHAW, M. D., } Editors.

St. Louis, Mo., - - December, 1874.

Reports of the Proceedings of Societies, Correspondence, Notes and Medical Items are solicited from all parts of the country.

Subscribers are likewise requested to call our attention to notices of marriages and deaths of physicians, and to all other matters of interest to the profession.

A short-hand reporter is regularly engaged upon the RECORD.

We are not responsible for the views of correspondents.

H. F. ZIDER, Publisher,
511 *Pine Street, St. Louis, Mo.*

Editorial.

A GRIEVANCE.

The following editorial, which we copy entire, appeared in the November issue of the St, Louis *Medical and Surgical Journal.*

"'PROOF SHEETS' ASTRAY.

While we acknowledge the compliment of the editors of the MISSOURI CLINICAL RECORD, in using *sixteen pages of our proof sheets,* * *'verbatim et literatim'*—compare October numbers—for *their* proceedings of the St. Louis Medical Society, their failure to give us credit for the same, we leave to the profession and press to pass judgment on.

When we attend the meetings of a medical society, and note its transactions, and compile from the proceedings furnished by the recording secretary, and the notes taken by ourselves, a carefully revised copy for our printers, and they set the same to type, the 'proof sheets' are as much our property as our horse and carriage; and the editors of the MISSOURI CLINICAL RECORD, in using proof sheets taken from our office, *without our knowledge or consent*, are more culpable than the party who takes them.

The circumstance, that we allowed our readers to credit our editorial work to the recording secretary, by placing it over his name, does not, in the least, relieve the editors of the RECORD, as they certainly knew our printers were not paid for setting manuscript to type for their accommodation."

When we requested Dr. Keith to allow us to publish the proceedings of the society from his reports, we were unaware then and up to the time we called upon him at his office of the shape of the "copy" we were to receive, and when he, of his own accord, handed us "proof sheets," we did not feel called upon to request him to rewrite, for our benefit, what he had already once written at considerable expense of time and toil; and, moreover, we were, and are still, of the opinion that the reports were the result of Dr. Keith's own labor, and, consequently, were his to dispose of as he saw fit.

The editors of the *Journal* seem to be ignorant of the commonest rules of courtesy as existing amongst journalists; for it is a matter of universal custom where reports are to be furnished several papers, for the reporter to even request the holders of the original manuscript to duplicate their proof for the accommodation of others. Had we been upon either of the occasions of our receiving "copy" at Dr. Keith's hands, the recipient of his original notes, we should most certainly have disregarded the small pecuniary consideration involved, and allowed our contemporary our "proof sheets" under similar circumstances.

We herewith present a letter from the late recording secretary, which will throw some light upon the question at issue:

LETTER FROM DR. CLAYTON KEITH.

LOUISIANA, Mo., November 18, 1874.

Editors Clinical Record:

Your note, requesting my statement in reply to an editorial in the November number of the St. Louis *Medical and Surgical Journal*, entitled "Proof Sheets Astray," is before me.

I submit *facts* without comment:

1. While recording secretary of the St. Louis Medical society I contributed, monthly, to the St. Louis *Medical and Surgical Journal* from fifteen to twenty-five pages (in manuscript) of the proceedings of said society, making in the aggregate over *ninety* closely printed pages of the *Journal.*

2. I corrected the "proof" of my manuscript each month at my office, *with the knowledge and consent* of the editor of the *Journal.*

3. When one of the editors of the RECORD called and asked me to furnish the proceedings of said society to the RECORD also, I had not the manuscript, containing the proceedings of the four previous meetings, at my office, it being then in the hands of the printer. I had, however, a corrected "proof" (*i. e.*, a second proof sheet furnished by the printer) on my desk, and rather than spend the best part of two days transcribing "proceedings" a second time from the book of minutes, I handed him the "proof" instead. I did this, merely to save labor, certainly with no other motive. My object was to accommodate both papers with no thought of injuring the *Journal* in the least. If any apology is due from me to the editor of the *Journal* for having given an editor

* Occupying *five and a half* pages in the RECORD.

of the RECORD "proof" instead of the manuscript from which that "proof" had just been made, let that apology be considered now rendered.

4. The statement, in the editorial referred to, that the editor "allowed his readers to credit his editorial work to the recording secretary by placing it over his name," is *gratuitous*.

Respectfully,

CLAYTON KEITH, M. D.

We leave it to our readers to judge, from the evidence before them, of the merits of the case as between Dr. Keith and the editors of the *Journal;* but we presume the former would have been less harshly assailed, could he have been further utilized in the matter of reports.

WE are always willing to receive just criticism from any source, even if the critic posts himself especially for the occasion. An eclectic journal in Chicago finds fault with the latinity of the prescriptions contained in some of our subscribers' communications. Of course we are in a measure responsible for some of these grammatieal inaccuracies, but it is very possible for errors of this sort to escape our notice. Now, while it does not at all follow that a man to be a good, and even learned physician, must be an acceptable Latin scholar; still, as our prescriptions are written in Latin, although not always that of the Augustan era, it is incumbent upon medical men to know, at least, how to form the genitive of the various declensions. As was remarked to us recently, the only criterion of a physician's ability open to the public, is in this very matter of prescription writing. The druggist, and through him the laity, measures a physician's attainments, to a great extent, by the manner in which he writes the directions for his medicines. Medical men, and many who should know better, are very negligent in this regard. The pharmacists' files afford ample proof of this, and our periodical medical literature furnishes further illustrations. We acknowledge ourselves equally culpable with our brethren in these matters, and here some manner of excuse may be framed; but when we find such errors creeping into carefully prepared text books we think it high time for more careful supervision. We could instance several works amenable to this criticism, but for vicious, unpardonable mistakes, commend us to the American edition of Niemeyer. Finally, to return to our eclectic fault-finder, we would say to him in good Latin, "*ne sutor ultra crepidam*," for if he will consult the back numbers of his journal of medical extracts, he will find errors similar in character to the ones he very justly condemns in us. H.

A PHYSICIAN who has recently returned from San Francisco, remarked to us in conversation, that the prevalent ideas entertained here of the beneficial effects of that climate in phthisis were quite erroneous. He stated that there were portions of California very well adapted as a resort for invalids of this class, but that consumption and emphysema and other pulmonary troubles were extremely frequent in persons in the city and vicinity of San Francisco—that is to say, residents, not including persons brought there for restoration to health.

He informed us, moreover, that aneurism, judging from the cases in hospital, is a very common affliction; and this statement finds confirmation in the medical literature of that section. These facts, we confess, are novel to us, and we would be indebted to our esteemed contemporary, *The Pacific Medical and Surgical Journal* for some enlightenment upon the subject, especially as our informant's first statement is a matter of much moment to our own invalids with lung affections. H.

IN an abstract of the proceedings of the Conference of the National College of Pharmacy read before the St. Louis Board of Pharmacy, among other questions discussed, we find that pertaining to pharmaceutical degrees claiming considerable attention. While leaving the general issues involved to be settled between themselves, we would like to offer one suggestion, viz: If it is determined by the colleges to confer the degree of "Doctor of Pharmacy" upon their graduates, let it at least not be written "Ph. D." This manner of signing the title would lead to confusion and misapprehension, being identical with the German degree of "Ph. D.," or "Doctor of Philosophy," which has an entirely different significance. Whenever the bearer wishes to imply that he is a graduate in pharmacy, let him sign himself, for instance, "Pharm. D."

H.

IN future, no one is authorized to make collections for the RECORD except the publisher.

It occurs to us that all this journalistic abuse of Dr. W. A. Hammond is in very poor taste—in fact, it has the look of envy. As Americans, we should feel proud of a man who has achieved, and deservedly so, a world-wide reputation in that department of medicine which owes to him so many marked advances.

H.

The French satirists are not alone in their unkind thrusts at medical men; for the Italians have a proverb, "*non far mai il medico tuo erede*" (never make your physician your heir), which is simply diabolical. It would have been well, however, if the betrothed of the famous Dr. Schoppe had reflected upon this advice.

H.

Correspondence.

PSYCHICAL OR PHYSICAL.

(Reviewed by W. B. H., Review Department, Missouri Clinical Record, October.)

Mr. Editor:

The field of medical criticism is an open one in which any one may enter, but, no less than the "prize ring," it has its recognized rules of "fair play" which a critic can not transgress and expect to retain the honor he may covet of Champion Reviewer.

The reviewer is expected to correctly and honestly weigh the paper he attempts to review. Reading a paper simply "by its title," as they do with certain bills in the legislature, and passing upon the value of its contents, is not considered the fair thing. We did not expect W. B. H. to comprehend "psychical or physical." There is too much physical and too little psychical in his composition for him to assimilate such a paper, but he should not have attempted to review a subject which he could not comprehend.

We *suppose* he could not comprehend the subject. If we are mistaken, then he has treated the paper *dishonestly*. He makes statements about the paper which are untrue, and he does not offer a single quotation therefrom to show that what he says *is* true. He says we make "many observations and advance curious theories which are not supported with facts." Now all the observations we make are supported by well-known facts and *no theories whatever are advanced in the paper.*

He attempts to place us in antagonism to Dr. Maudsley, says we "quote at great length" from him and seeks to convey the impression that we quote to disprove, whereas the *fact* is, we have quoted quite frequently, though *nowhere at great length*, and for a different object altogether.

The quotations from Maudsley are in the main supporters of our paper, and were intended for that purpose as the following note at the foot of the first page of our monograph will show:

"We have purposely chosen the language of Dr. Maudsley, wherever we could substitute it and express our own views, hence the number of quotations from this author in the paper."

This does not look much like "avowedly combatting Maudsley." Maudsley is combatted on nothing which he himself considers proved. on the contrary, he is quoted often to sustain the writer's views, as follows:

"Whatever may be the real nature of mind and of its nature, we shall probably forever remain ignorant" while retaining our mortality. "It is most certainly dependent for its every manifestation on the brain and nervous centres, and scientific research is daily disclosing more clearly the relation between it and its organ."

And this:

"There are many more things in the reciprocal action of mind and organic element, than 'are yet dreamed of in our philosophy,' and we fully concur with Dr. Maudsley that—

'Notwithstanding we know much and are daily learning more of the physiology of the nervous system, we are only on the threshold of the study of it as an instrument *subserving* mental function.'"

In the very initiatory of his review, W. B. H. shows that he does not comprehend the tenor of the paper. We will be more honest with him than he was with us, and quote what he says: "The question discussed in this brochure is this: Are the operations of the human mind due *simply* and *solely* to physical changes, or are they the manifestations of the presence of an immaterial entity, the soul?" This shows that he got no further than the title.

Now let us quote from Psych. or Phys. pages 5 and 6:

"It is, perhaps, beyond a reasonable doubt that 'important molecular changes do take place in those hidden recesses of the brain,' or those nervous channels of communication which lead to and from the mind, but to which we have not yet, by sight of science, been enabled clearly to penetrate; but which the scalpel, the microscope, and the re-agents and appliances of advancing chemical physiology and pathology, may probably some day more intimately and clearly reveal to us, *and that those atomic* changes *accompany*, *precede* and *follow* the rational and irrational manifestations of mind.

Again, Psych. or Phys., pages 7, 11, 14 and 15:

"Forms of matter may depend upon mind for the appearances they present; so may and do forms of thought depend upon matter for their manifestations or expression. The germs of thought and thought molecules may have a simultaneous birth, (if we can conceive of the birth of either,) and together develop and mutually act and react upon each other in their manifestations. In this sense we agree with Dr. Maudsley—that brain and thought are co-existent."

* * * * * * *

"Science will doubtless reveal to us, if the present evidences of the fact are not adequate to convince us, that the birth of every idea (if we may so speak,) to the outer world and to self-consciousness, is accompanied with the death of cerebral cells, and that the death of these cells is the condition and accompaniment of the manifestation of thought."

"Corpuscles, molecules and cells may constitute the whole of man, but science has not demonstrated it to be so.

"If science should ever demonstrate thought to be material, it would probably be found to be of so subtle a form of materiality, and possessed of so much volition in many of its manifestations, as to confound, confuse or abolish our present ideas of matter, and alter our definition of its properties; a form of matter much akin to that something which we all recognize as existent from all eternity, and to which we could, perhaps, give no better name than mind —the impress and image of God."

"Perhaps we should then find our logic justifying us in accepting the idea as true, that so subtile a form or 'force of matter' as thought, would have to be entitled to precedence in the order of existence over the cruder forms manifested to our senses. The formative stages of matter, (so to speak,) and the doctrine of disintegration as the origin of "mind viewed in a scientific sense," might have to be reversed or exploded. We should view mind in relation to matter much as we now do, and as Locke viewed God in relation to mind and matter." 'There is no truth more evident than that something must be from all eternity. I never yet heard of any one so unreasonable, or that could suppose so manifest a contradiction, as a time wherein there was perfectly nothing. This being of all absurdities the greatest, to imagine that pure nothing, the perfect negation and absence of all being should ever produce any real existence.'"

* * * * * * * *

And again, Psych. or Phys. page 20.

"We recognize how entirely the integrity of the mental functions depends upon the bodily organization;" and as physicians we cannot afford to loose sight of the physical aspects of mental states, if we would truly comprehend the nature of mental disease. We 'recognize the existence of an intelligent mental force, linked in harmonious association and essential relations with other forces, but leading and constraining them,' and led and constrained by them in its manifestations."

"We must also recognize the fact that the conscious mind of man is blended, in unity of development and action, with the unconscious life of his physical nature. We need neither assume that 'mind is a function of matter,' or that 'matter is a realization of mind,' in order to arrive at a correct general understanding of mental disease."

And here is the conclusion of the paper:

"Close to us, yet inaccessible to our senses there lies a domain of nature—that of the infinitely little—the operations of which are as much beyond our present ken as those that take place in the remotest region of space to which the eye with all its aids can not reach, and of which the mind can not conceive." Or, as John Locke says: * "If a great, nay, far the greatest part of the several ranks of bodies in the universe escape our notice by their remoteness, there are others that are not less concealed from us by their minuteness." This is as true to-day as it was in the days of the great philosopher. What lies within our ken is but a small part of the universe of mind and matter, and "our reason carries us very little, if any beyond certain matters of fact." †

We quote a little further from W. B. H.: "To hypothecate the existence of an ideational cell or molecule *when cerebral cells are demonstrable in profusion whose functions remain unknown.* * * * * * * He considers "*analogous to a suppositious digestive cell,*" etc., and thinks we ought not to do it.

We do not understand what a suppositious digestive cell is, and think the term suppositious would stagger Webster or Worcester, but presume it is something gastric.

When we read the long sentence from which the above is extracted, we concluded that the suppositious digestive cells of W. B. H.'s capacious stomach, whatever they are, were numerically in the ascendancy over the "minute thought molecules" of his cerebral lobes, and we are of the same opinion still.

He assails us again thus:

"To effect a reconciliation between science and religion has seemed important to *timid minds.*" To one like himself, bold enough to attempt to review a subject which he plainly does not comprehend, and in the rashly blind manner in which he handles "Psychical or Physical," religion is no obstacle. Neither is a stone wall or a hedge fence to a blind animal.

Then he says "there is no conflict between science and religion." This is what we think, though we said nothing about religion in our paper.

* Lockes' Essay, book IV, chapter III.
† Maudsley.

We have no objection to W. B. H.'s butting his brains out against his own stone wall, but we do not care to have the *debris* of his ruined encephalon scattered on our premises.

In conclusion, and in the language of Maudsley, Phys. and Path. of Mind, page 16: "It may now be added that the existence of mind does not necessarily involve the activity of mind. Descartes certainly maintained that the mind always thinks." * * * * Page 17—"But such opinions only illustrate how completely metaphysical conceptions may over-rule the best understanding. Pursuing the quotation a little further we may also say, as applied to W. B. H., his "mental power seems to exist rather in statical equilibrium" than in manifest energy," as judged from his review of "Psychical or Physical."

C. H. HUGHES, M. D.

OUR NEW YORK LETTER.

New York as a Medical Centre—Southern and Western Men—Bellevue Hospital—Faculty Changes—Medical Schools, Journals, Societies, etc., etc.

NEW YORK, Nov. 14, 1874.

DEAR RECORD:

During the early period of American medicine, in the good old days of Rush, and James and their compeers, whilst it was just beginning to be possible for a man to obtain his professional education in this country, it was still deemed essential that one should at least receive the finishing touches from the master hands of the old world. In those days the young and ambitious physician almost invariably selected the famous universities of Edinburgh or Paris to make his final studies; and, on the other hand, the preliminary ones were with almost equal unanimity of choice conducted in Philadelphia. Note the change. Paris and Auld Reekie no longer attract—they have been superseeded, in American estimation at any rate, by Berlin and Vienna. The Physicks and Meigses of to-day now fail to draw to Philadelphia the vast concourse of students that were wont to assemble there in the past, for medical students now seek their professional qualifications throughout the width and breadth of the land. There must be a *raison d'etre* for this. The explanation can be found, I think, in the fact that these institutions have neglected to keep pace, in the fullest extent, with the necessities and demands of the age; or, at least, displayed such dilatoriness in this regard as to lose their opportunities.

Germany forestalled France and Great Britain in the advantages offered for the teaching of the specialties, and the other cities of the United States gained and held this superiority over Philadelphia. In Paris, it is true, the special branches of medicine and surgery were early taught, but not with that patient, plodding perseverance exhibited in Germany; whilst in Great Britain, and in our own former medical centre, up to a comparatively recent date, no such instruction was contemplated in the curriculum of studies.

Now here in New York, and elsewhere throughout the Union, these demands have been felt and granted; new chairs have been erected in our colleges; numerous special dispensaries have been everywhere inaugurated; and societies for the discussion of especial subjects have been established. Students are quick to see and take advantage of these extra facilities, and cities and colleges less abreast with the spirit of the age must suffer the consequences. To prove the truth of my theories, I have it on the best authority, that there are but six hundred students attending the two Philadelphia schools, while New York and its three institutions, has over twelve hundred.

Besides, say what you may, talent and ambition will gravitate toward the great business and social centres, and here we have the flower of our profession in America. In this connection it is interesting to note, bearing in mind the sneers of the *Philadelphia Medical Times*, the number of men of Western and Southern birth, holding the foremost rank in reputation and practice. In this catagory we find the names of such men as Marion Sims, Thomas, Emmet and Sayre—men who reflect credit upon us in the eyes of the world.

It was a masterly stroke of policy in the founders of the Bellevue college to erect their edifice in close proximity to Bellevue hospital, adopting the name of the hospital for their own, and for a long time and in many ways, have they reaped the benefit of their strategy. But the beet laid plans of mice and men sometimes go astray; for, of late, Bellevue has seen trouble, both within and without. Some of her best men have deserted her—Hammond and Stephen Smith having gone over to the old University, and the ruthless Board of Commissioners of Charities and Corrections has determined to apportion more equally the clinical advantages of Bellevue hospital among the three colleges. However, her classes are still as large as ever, and she can boast some of the brightest names to be found in this country. The University and Bellevue, like the Jefferson in Philadelphia, are, as a rule, patronized by Southern and Western students, while the College of Physicians and Surgeons, like the University of Pennsylvania, is generally the choice of those to the manor born.

We have all kinds of medical societies in New York, from the Academy down. The Academy of Medicine is, however, the parent tree from which all others draw sustenance. A man may belong to as many other associations

as he may see fit, yet it is essential if he desires to be considered in good standing, that he should be received in membership with the Academy. Besides, we have dermatological, neurological, medico-legal, otological, laryngological, opthalmological, pathological, microscopical and obstetrical societies, all separate and distinct from each other.

There are twelve medical journals, semi-monthly, quarterly and annual, published in this city, viz: The *New York Medical Journal; The Medical Record; The American Journal of Obstetrics; The Psychological and Medico-Legal Journal; The Archives of Opthalmology and Otology; The Archives of Dermatology; The American Chemist; The Medical Register; New Remedies; The Archives of Electrology and Neurology; The American Journal of Syphilography and Dermatology.*

This is certainly a good showing, especially as the majority of those named have sprung up since the war.

I suppose you have had the Hammond hydrophobia affair *ad nauseam*, so I will not trespass upon your space with its reiteration. I am glad to see that the RECORD is taking the rank it deserves, as I have the pleasure of seeing quotations from its columns in many of the Eastern journals.

I promise to give you a more gossipy letter next time. V. G.

Extracts and Abstracts.

HYPODERMIC INJECTIONS IN SCIATICA.—Dr. T. M. B. Cross (*Psychological and Medico-Legal Journal*) places his main reliance in the treatment of sciatica in the employment of local treatment, which he says should not be restricted to any particular class of cases, as it will be found useful in all. The deep injections of morphia, galvanism, and blisters are the most useful remedies of this class:

"First in the list stands the deep injections of morphia, which have frequently effected a cure in my hands when both the others have failed.

As far as my experience extends I believe that the deep injections of morphia are much more efficacious in chronic cases of sciatica than galvanism.

In order to obtain the most beneficial results, it is essential to inject a sufficient amount of morphia to relieve the pain. To do this it is always well to begin with small doses, and gradually increase the quantity.

I usually begin with five minims of Magendie's solution, which is equivalent to the sixth of a grain of the sulphate of morphia, and augment the amount by a minim a dose until the pain ceases.

Ordinarily it will be found necessary to repeat the injection after the lapse of twenty-four hours, for the effects of the morphia will have disappeared, and the pain will again return if the dose be not repeated.

In severe cases it may be expedient to give two injections daily, and it is better to do this than to give more than half a grain at a time.

I have only in one instance been obliged to inject three-quarters of a grain daily. A much smaller quantity, however, will produce the desired result in a majority of instances.

It has been usual to inject the morphia either under the skin or in the neighborhood of the nerve; but the method I have employed in these cases is that which was devised by my friend Dr. Hammond, who suggested it to me some four years ago, and which I consider preferable to any other.

It consists in carrying the point of the syringe directly down to the nerve, and penetrating its sheath.

In order to accomplish this effectually, draw a line from the trochanter major to the tuberosity of the ischium. In the center of this line let fall a perpendicular. Four inches below the horizontal, and one inch external to the perpendicular, is the place to strike the nerve at its most favorable site.

At this spot insert the point of the syringe, holding it perpendicularly and gently rotating it, and gradually pass it to the depth of an inch and a half to two inches, when it will touch the nerve.

If successful, the patient will experience a thrilling sensation along the course of the nerve. which will generally be accompanied by tingling and formication in the foot.

By practice this can be accomplished successfully nearly every time. After a while the sensibility of the nerve becomes deadened by the continual injections into its substance, and the thrilling sensation ceases.

The duration of the injections will depend upon the length of time the affection has lasted, and its cause. It is well to occasionally diminish the amount, in order to see if the pain still exist.

When we find that it has ceased, the morphia should be very gradually decreased until the amount is so small that it can be safely discontinued.

It will be seen that the method which I have described embraces both acupuncture and the local injection of morphia.

Acupuncture has been used in China and Japan for centuries, for all diseases, and was introduced from thence into Europe, and from there into this country, where it has been used with considerable success in the treatment of neuralgia.

The local injections of morphia are now admitted to be more effective in their results in the treatment of sciatica than the remote injec-

tions. This is probably due to the fact that a certain amount of irritation is induced in and around the nerve, rather than to the therapeutical effects of the morphia.

The experiments of Louton and Bertini (*Archives Général de Médecine*, Oct. et Nov., 1863, et Avril, 1868,) prove that the injection of irritating substances, such as the nitrate of silver, etc., into the neighborhood of a nerve, may be very effective, and they cite several cases of obstinate sciatica which were cured by this means.

For injection I prefer Magendie's solution of morphia. This should be made fresh, and contain no acid or glycerine, but simply the salt dissolved in distilled water. If these precautions be not taken, there is danger of producing abscesses.

Other physicians prefer a more concentrated solution. Ten grains of the muriate or sulphate of morphia to two drachms of distilled water is the usual strength.

This solution, when cold, is nearly solid, and before using must be heated in order to render it liquid. It has the advantage, however, of escaping decomposition, of being free from the pencillium and extraneous substances, and of being always ready for use. When the injection is properly given there is little or no pain; but when the patient is extremely nervous, an excellent local anæsthetic will be found in the use of Dr. Richardson's spray-producer."

TUBBERCLE OF THE PONS VAROLII AND OF THE CEREBELLUM.—Tabour Arsene, aged thirty-six years, clerk, admitted to the Cochin hospital, 16th of March, 1874, service of M. Bucquoy.

Until 1871, this man had always enjoyed good health; had never had syphilis, and, according to his statement, had never committed alcoholic excesses.

During May, 1871, he received a fragment of a projectile in the right eye; the eye was completely destroyed; there was no bad sequel. In October, 1871, the globe of the eye was extirpated, and Tabour was furnished with an artificial eye. All went on well. Until 1873 his health remained, in every respect, as good as before.

In the course of 1874, he began to cough and to emaciate; the cough and the emaciation steadily increased. The patient continued to work until the 1st of February, 1874; since which time, he suffered from dull occipetal pains, which were aggravated by coughing and external sounds.

His memory became somewhat enfeebled and his calculations were performed with more difficulty; soon afterward, there appeared a slight diminution of hearing, a little embarrassment of speech, vertigo at times and, from time to time, vomiting without effort. Early in January, he noticed, one morning, that the left leg was benumbed and enfeebled, that the left foot did not feel the ground distinctly, the left arm was raised with difficulty, and the hand of that side had lost its strength to the same degree; vomiting became more frequent; night sweats; the emaciation increased.

On admission, a paralysis of the left arm and leg was ascertained, as well as a well-marked paralysis of the right side of the face; the patient could walk only by the aid of a crutch. Sensibility is markedly diminished in the left limbs; pinches and pricks are felt less acutely than on the right; cold bodies appear warm. Sensibility is diminished upon the right side of the tongue. Hearing diminished especially upon the right side. He has never had a fit.

At the superior third of the chest, on both sides, before and behind, dullness, moist subcrepitant râles; expiration prolonged, voice resounding; quite abundant nummular expectoration; has never had hemoptysis.

March 22—Almost every day the patient vomits the soup which constitutes his sole nourishment; diarrhœa; occipetal headache.

March 28—The right orbital cavity suppurated. Circum-orbital pains on that side.

April 1—The patient complained of some diminution of vision in the left eye. The headache and vomiting diminished somewhat. Gurgling at the apices of both lungs. Emaciation continued. The same disturbances of mobility and sensibility.

April 11—Retention of urine.

April 13—Incontinence of urine. Facial paralysis more pronounced; the right side of the face seemed atrophied.

April 20—The pulmonary lesions increased in extent. Profuse diarrhœa, vomiting frequent, never painful, like simple regurgitation.

April 24—Vertigo and fall; the patient was able to rise and regain his bed unaided.

May 1—Profound sadness; feeling of near approach of death. The patient rested upon the right side. Continual diarrhœa. Sanguinolent sputa, gurgling over the upper half of the right lung and throughout almost the entire extent of the left lung.

May 8—Decubitus dorsal. Profuse sweats; lips fuliginous; pulse wretched; dyspnœa intense; right orbital cavity filled with pus. Temperature 37°; respiration 40.

May 9—Condition still more grave. T. 37; P. 140; R. 40.

May 10—T. 37.2°; R. 168. *In articul mortis.* Died during the night.

AUTOPSY.—The brain alone could be examined. The arachnoid and pia mater muc injected; veins turgid; fine capillary arborizations well developed. No tubercular granulations apparent in the meninges; no adhesion of the pia mater to the cerebral convolutions

Atrophy of the right optic nerve, which ha scarcely half the diameter of the left; it wa transformed into a gray gelatinous substance

The greater part of the right half of the *pons variolii* was occupied by a caseous mass of the shape of a filbert, its greater diameter antero-posterior equal to the antero-posterior diameter of the *pons* itself. By its median and most swollen portion this mass reached the median line of the *pons* and left free about one quarter of that half of the *pons varolii* externally.

In the right lobe of the cerebellum a caseous mass of the volume of a hazelnut occupied the *arbor vita*.—*Le Progrès Médical, September 12, 1874.*

TREATMENT OF FUNCTIONAL DERANGEMENT OF THE LIVER.—Dr. Charles Murchison, in one of his Croonian Lectures, gives the following advice on this subject:

First, in regard to *diet*, much more is to be expected from the careful regulation of diet than from physic. We ought to remember that the hepatic derangement of lithæmia may exist for years, and that it may be cured by a careful attention to diet only, but if neglected may go on to gout. Over-eating, especially of rich food, must be interdicted, and above all saccharine and oleaginous cooked dishes. Even bread may have to be given up by the patient. Any idiosyncrasy must be ascertained. A simple diet of stale bread, fish, tea, etc., will be found best. The derangement may be due to over-much both of nitrogenous and non-nitrogenous foods, and it may be necessary to order a minimum only of both kinds. The chief meal of the day may have to be taken in the morning. Diluents, such as the mineral waters, may prove useful. Even greater caution should be exercised in recommending alcoholic drinks, especially malt liquors; many patients under these circumstances do better without stimulants at all. Alcoholic drinks in amounts falling far short of affecting the brain, may undermine the health by their effects on the liver. The effect of sudden and complete abstinence is not so serious.

Secondly, a free supply of *oxygen* is, next to diet, highly important in the treatment of functional diseases of the liver. There is no doubt that exercise quickens the circulation, introduces more oxygen into the system, and operates beneficially on lithæmia. Observations have shown the value of sea air, and patients with hepatic derangements and lithæmia will, especially under favorable circumstances, derive advantage from residence on the coast.

Aperients and cholagogues are of value in many cases, whether constipation is present or not. Aperients carry off not only bile but fluid from the intermediate circulation. The aperient salts are chiefly used. Certain other aperients have long had a reputation, as cholagogues, among which mercury stands pre-eminent. At the present day mercury has, however, lost much of its reputation, especially as a cholagogue. A practitioner gives a mercurial, and finds more bile in the stools and his patient relieved. A physiologist ties the common bile-duct, makes a fistula, and finds that less bile is discharged after the administration of mercury. The results of such experiments have indeed been contradictory. The general effect has been to discredit the cholagogue action of calomel very much. On the other hand, it has been urged that the results of such experiments do not apply either to man or to the diseased state of the liver. Now, much of the difference of opinion may be reconciled if we remember the osmotic circulation in the abdomen previously alluded to. A large proportion of the bile which enters the bowel is reabsorbed and carried back to the liver. Mercury and some other drugs produce bilious stools because they sweep away the bile before it is absorbed; and it is for this very reason that they are to be found at the bottom of Röhrig's list of medicines which increase the flow of bile from the common duct. It would appear, therefore, that mercury is a true cholagogue, and that more than if it were a mere stimulant of the liver, and thereby induced congestion. It may also act on the gall-bladder. But there is reason to believe that mercury is of use in other functional diseases of the liver unattended with biliousness. Patients suffering from such diseases continually confess this. Mercury may indeed be useful for the very same reason that it is useless in promoting the healing process, namely, by helping disintegration. It is perhaps for the same reason valuable in some cases of croup and in constitutional syphilis. Be this as it may, the clinical evidence in favor of mercury is overwhelming. Podophyllin acts much like mercury, but it has probably some affinity for the small intestines, and gripes more than mercury. Jalap, senna, etc., are all valuable. Röhrig seems to consider them true cholagogues. Colchicum has some effect in this way; taraxacum probably acts mainly as a mild aperient.

Alkalies, next to aperients, are the most useful drugs in functional derangements of the liver, especially a combination of alkaline salts. The waters of Vichy, Vals, and Ems are valuable for the same reason. The beneficial effects of alkalies are not due to the neutralization of acidity or of lithic acid, but to their influence upon the pathological state on which lithæmia depends. The administration of alkalies in lithæmia is, as a rule, well borne, but it should be occasionally interrupted.

Chloride of ammonium, mineral acids, tonics, and opium may be used in these cases; but tonics should be given with the greatest possible caution, otherwise they may do more harm than good.—*Chemical Gazette.*

TREATMENT OF PILES AND PROLAPSUS OF THE RECTUM BY INJECTION INTO THE RECTUM OF EXTRACT OF ERGOT. By G. William Semple, M.

D., Hampton, Va.—In 1868 I operated with the ecraseur on R. M. B. for piles, from which he had been suffering since 1863. The disease began to return in eighteen months, and increased to such an extent, accompanied by prolapsus of the rectum, that for three years there had been a considerable loss of blood every day, and it had been necessary that he should lie down after each evacuation of his bowels to await the return of the prolapsed rectum, when, on the 8th of April last, I operated on him by the application of nitric acid. This, contrary to my usual experience, produced violent pain and irritation of the neck of the bladder, requiring for three days large and repeated doses of morphia.

After healing of the slough, the piles still continued to bleed and to be painful, but the patient was unwilling to submit to further operative procedure. Having at the time under successful treatment, by ergot, a mammary tumor, and my attention having been called to the relief of varicose veins by the hypodermic injection of ergotin, and remembering that in several cases of imperfect involution of the uterus, in which I had successfully prescribed ergot in combination with sulphates of quinine, iron and strychnia and extract of cannabis indica, in which piles co-existed, they also had been cured, I ordered the injection of ℥ss of the fluid extract of ergot, with ʒss of water, into the rectum after each evacuation. Though the patient has been irregular in pursuing the treatment, he has since seldom had any discharge of blood or suffered any inconvenience, and now considers himself cured.

On the same day (May 1st) this prescription was made, B. H. E., convalescent from typho-malarial fever, who had suffered with piles and prolapsus of the rectum for fifteen years, daily losing blood, and being obliged to lie down after every evacuation to await the return of the prolapsed part before resuming his work, called on me for advice. Ordered the same treatment, which he pursued steadily. At the end of six weeks, having had but one discharge of blood, he felt himself well, saying he was a new man.

This patient's spleen had been greatly enlarged for many years, and that, much to my surprise, was reduced to its normal size by the treatment.

I have since prescribed the same treatment in three other cases of piles, all of which have been cured. One of the patients was a pregnant woman. No labor pains were produced or inconvenience felt.

In some medical journal published in June, Langenbech's recommendation of the hypodermic injection of ergotin under the mucous coat of the rectum was first brought to my attention; but the painless operation of injecting he extract into the rectum, where it will certainly and quickly be absorbed by the vessels of the affected part, would seem greatly preferable—substituting an operation, too, that may be done by the patient himself, instead of one requiring the frequent services of the surgeon. Medicines dependent for their action on absorption, according to my experience, act much more favorably on the genito-urinary organs when introduced into the rectum than into the vagina; and doubtless in the treatment of fibroid tumors of the uterus, the injection of ergot into the rectum would be found the best mode for its administration.—*Virginia Medical Monthly.*

ON EXCISION OF CANCER OF THE BREAST BY SCISSOR-CUTTING UNDER ETHER SPRAY.—Dr. Benjamin W. Richardson, F. R. S., publishes in the *Lancet*, Aug. 29, an important paper on this subject, from which we find he has himself performed operations with scissors. If this be contrary to the custom of the College of Physicians of which Dr. Richardson is a member, we none the less rejoice that he has refused to be thus trammeled, and we invite special attention to this, his last contribution to our art.

Two cases are related in detail by Dr. Richardson, the results of which he sums up as follows:

The effect of the local anœsthesia.—It is certain that in both these cases the local method afforded everything that could be desired in the way of anæsthesia. It saved all acute pain; it saved the patient the dread of death during the insensibility from a general anæsthetic, and it enabled me to proceed in our task without a thought as to the immediate safety of the patient. It warranted me in recommending the operation.

The method of cutting with scissors.—Local anæsthesia has many disadvantages. It is more troublesome than general anæsthesia as a detail of practice, and, as it leaves the consciousness alive, it fails at times in preventing the fears of the patient. But hitherto the greatest difficulty in operating under it has been the obstacle of cutting through the hard, frozen, insensible part. The resistance to incision by the best cutting knife, and especially to dissection by the knife, is such that I have seen the most skillful surgeons troubled by it; and I have never been able to complain of the objection that had been made to the method on this ground. The difficulty is now overcome by the process of scissor-cutting, which I have here introduced. The advantage of the scissors over the scalpel will be at once proved by any one who will take a thick, firm structure—the cover of a book for example—and try to cut through it. With the best of scalpels he will be troubled; but with scissor blades he will cut with the utmost facility, if the blades be well set. So, in cutting through the frozen animal tissue, the parts can be divided as rapidly as may be wished with the scissor-blades,

with perfect accuracy of incision, and as deeply as may be desired. The cutting is also made without any downward pressure, by which pain of pressure is saved. Also in deep dissection the tissues, frozen as they are exposed, can be divided more easily than by the knife; for the harder they are solidified, the easier they are divided by the scissor-blades. In a word, I believe that every cutting operatien. in which local anæsthesia is practicable, may be performed neatly and effectively by scissor-cutting, and that a much larger number of operations may now be painlessly carried out under the local method.

Effect of the operation on the heart in the cases related.—No fact is more instructive in the history of the patients recorded in this paper than the beneficial effect produced on the functions of the heart by the operation. In both instances the cardiac irregularity and irritability were purely due to irregular nervous supply—to nervous irritation and consequent muscular exhaustion. The irritation might have been in part due to the mental anxiety which naturally accompanies the disease, or it might have been due to the irritation of the tumor, and have been reflex in character. Which ever view be correct, the result of the operation was curative, and, as the cases are typical of a class of phenomena of disease, the lesson they teach is extended far beyond them as individual illustrations. They show that so soon as the heart obtains rest from the persistent nervous thrill that invades it, its muscular tone returns, and its irregular motion and excitability cease. Thus, by operating early for the removal of cancer the surgeon acts as physician also, and prolongs the general life by removing the local disease. I am convinced I have seen patients suffering of cancer die from the mental and local irritation of the disease, long before any development of the malady has advanced to kill by destruction of the part or organ involved.—*The Doctor, Oct.* 1.—*Medical Examiner.*

THE SULPHIDES OF SODIUM. POTASSIUM AND CALCIUM.—Dr. Sydney Ringer, Professor of Therapeutics in the University College, London, (*Lancet*, '74,) speaks very highly of the value of the sulphides in the treatment of abscesses, boils and scrofulous sores:

"The sulphides appear often to arrest suppuration" by reducing inflammatory action. "The influence of this group is still more conspicuous after the formation of pus. They then considerably hasten maturation, whilst at the same time they diminish and circumscribe the inflammation. They promote the passage of the pus to the surface and the evacuation of the abscess." * * * * *

"A tenth of a grain of sulphide of calcium, given every two or three hours generally prevents the formation of fresh boils, while it lessens the inflammation and reduces the area of the existing boils."

"In carbuncles the sulphides will generally be found equally serviceable, melting, as it were, the core into healthy pus."

"The good effects of the sulphides are conspicuous in certain scrofulous sores not uncommonly seen in children."

"On the administration every hour or two of a tenth or twentieth of a grain of sulphide of calcium the following effects occur: New formations seldom appear, although for months or years the child may have been infested with them. Many of the abscesses, especially in a very early stage of development, dry up and disperse, others generally speedily come forward and discharge their contents, the pus being laudable, instead of thin and unhealthy. The abscesses already in an open state improve, their pus becomes healthier, and the wound heals speedily."

"The topical effect of sulphur ointment, of an ointment of the hypochlorite of sulphur, or still better, of the iodide of sulphur of the pharmacopœia, is most marked on acne indurata and acne rosacea. Here, again, the effects are two-fold, and even opposite, according to the stage of the eruption. If applied at the very commencement of the eruption, as soon as the little hard knot is felt under the skin, further development is arrested, and the hardness speedily disappears. When, however, the nodule has advanced further, and suppuration has set in, then the effects of the ointment are much like those of the sulphides, administered internally, on boils."

"The ointment hastens maturation, limits the swelling and hardness, and thus considerably curtails the duration of the eruption. Nay, further, if rubbed over the skin it appears to check the formation of acne spots. If rubbed over the nose and neighboring parts of the face in acne rosacea its effects are often striking. Not only does it act as in acne indurata, but the hardened, cellular tissues become softened and reduced to a more natural state. I have found the iodide of sulphur likewise useful in bromic acne, reducing the eruption, or at least considerably lessening the size of each spot. In acne the ointment should be thickly smeared over the eruption night and morning."

DESTRUCTION OF TUMORS BY POTASSIUM BROMIDE.—Dr. Peyraud has communicated to the Medical and Surgical Society of Bordeaux the result of applications of pulverized potassium bromide to tumors of the face.

Dr. Peyraud, having noticed that this salt had the property of arresting the circulation locally, and that a concentrated solution injected hypodermically produced cicatrices, was induced to try it in the case of an extensive cancroid of the face. The tumor covered the

gums, the malar region, and was also invading the left inferior palpebra. Compresses were soaked in a concentrated solution of bromide and applied to the tumor. As the solution did not produce the desired effect, the tumor was covered with the salt finely powdered. A thin, grayish eschar was soon formed. The applications were continued, and after twenty-eight days the tumor had disappeared, leaving nothing but the base by which it was connected with the deeper tissues. The applications were not painful.

Dr. Peyraud thinks that the bromide acts by arresting the capillary circulation rather than by the destructive mechanism of ordinary caustics. He also refers to a case of severe hæmoptysis which had proved rebellious to all treatment, but which ceased on the administration of the bromide in large doses.—*Bull. Gén. de Thérap., July* 1874.—*New York Medical Journal.*

Slippery-Elm Bougies in the Treatment of Organic Stricture of the Urethra.—Dr. Jas. D. Moncure (*Virginia Medical Monthly,*) speaks very highly of bougies of this material in the treatment of organic strictures, and while the method is not a novel one, he regards it as far preferable to any other mode of dilatation for the following reasons:

"1st. The instrument can be more readily introduced than any other, because it is self-lubricating, and can be made as small as needed.

2nd. It is safest, because so flexible that, when properly prepared, it is impossible to inflict any injury.

3rd. It is the quickest in its action, as like the sponge-tent, though in a less degree, it absorbs the moisture, and while in the stricture dilates the opening to almost double its original size.

4th, It is far less irritating, and indeed is sometimes soothing to the inflamed mucous membrane.

5th. It can always be introduced into any stricture through which the smallest continuous stream of urine can pass.

6th. It requires no special amount of skill on the part of the operator to secure its introduction.

I prefer to prepare elm bougies for my own use in the following manner: From a sheet of the bark of the usual length as found in the drug-stores, split off a piece a little larger in size than the number of the instrument that would probably be required. With an ordinary pocket-knife, trim this slip or stick down to the size and form of the bougie that would otherwise be used. Being thus made, it is prepared for introduction by merely *dipping* it in water; or, better still, by drawing it once through the closed hand, in the palm of which a wet cloth is held. Then wait only three or four minutes until a mucilaginous coat forms on it, when it is ready for use."

Monobromide of Camphor.—Dr. Bourneville, of Paris, who has been experimenting with this new agent in certain nervous affections, says that in *insomnia* he gave it in two cases—to one in four-grain doses at bed-time, and to the other eight grains—with the effect of securing sleep. In three cases of chronic paralysis agitans, the monobromide diminished the agitation and slightly increased sleep. An excessively chronic and violent case of chorea was much tranquilized while taking the drug. In *hystero-epilepsy*, of which Dr. B. had two cases, he gave eight to ten grains of the medicine daily, increasing the quantity by two grains every five days, with notable amendment. In five cases of *epilepsy*, all of long standing, the results, without being conclusive, were sufficiently satisfactory to encourage a further trial of the remedy. Dr. B. exhibits the monobromide in pill, or dragée, and hypodermically. For the first he covers two grains of the monobromide with a sufficient quantity of sugar to preserve it from contact with the air and to facilitate its administration. For hypodermic use he dissolves forty-five grains of the monobromide in nine drachms of alcohol and four and a half drachms of glycerine, and of this solution injects from forty to fifty drops.—*Amer. Prac.*, Oct. 1874—*Va. Med. Monthly.*

Quinine in Gonorrhœa.—The effects of the means heretofore used in the treatment of gonorrhœa—such as permanganate of potash, carbolic acid and sulpho-carbolate of zinc—are exceedingly slow. Haberkorn (Berlin Klin. Wochenschrift, No. 34, 1874) has employed quinine in such cases; its application produces scarcely any pain and the author of the paper states that its results are very prompt. In both fresh and older cases he dissolves 1 gramme (15·53 grains) of quinine with a little acid in 75 grammes of water and 25 grammes of glycerine, of which small injections of about 5 grammes should be made thrice daily, and be held for a considerable time in the urethra. The result is usually obtained in three days. The extra cost of the medicine is more than compensated for by the earlier cure. Schuster's tannin bougies, even when combined with an abundance of quinine, do not have this effect. Dry quinine sprinkled on infecting ulcers has a similar action, and experiments may also be made with strong solutions of quinine.—*Allg. Wien. Med. Zeit., Oct.* 6, '74.—*The Clinic.**

* We have followed this plan in several cases without observing any appreciable effect upon the urethral discharge. H.

MUSCULAR CONTRACTION IN APPARENT DEATH.—Dr. Labordette, in a communication on the contraction of the masseter as a sign of life, says that the laryngeal speculum, after having triumphed over the contraction of the masseter, is of service in recalling life; the contraction ceases on its application. On every occasion in which he was able to make the trial, it was found that, on the restoration to life, the jaw closed as soon as the instrument was withdrawn. If, on the contrary, the introduction is maintained, the elastic force, which Voisin says is due to trismus, becomes neutralized, and the obstacle to the introduction of air being thus overcome, the patient inspires and lives. If the speculum be introduced into the mouth of a cadaver, the remarkable fact becomes manifest, that, though the instrument is inserted very deeply, it does not become fixed. It may be withdrawn and the mouth will remain open, corresponding with the absence of contraction in the masseters. In this way the double advantage is obtained of having a proof of death if the mouth remains open and a means of recalling the life of the patient if the mouth closes. Any one can introduce the speculum and thus assure himself whether death has really taken place.—*Gaz. Méd. de Bordeaux*, July 1874.—*N. Y. Med. Jour.*

POWDER FOR PREVENTING THE CICATRIZATION OF SMALL-POX PUSTULES.—Dr. Pennavaria, of Sicily, recommends a powder composed of four parts of flowers of sulphur and one of red precipitate, for preventing the cicatrization of small-pox pustules on the face. He was induced to use the powder for this purpose from having found it extremely useful in many cutaneous diseases, especially eczema and acne. In using it, a drop of glycerine is placed on the pustules, and the powder sprinkled over this. The crust becomes detached in a few days, leaving the skin intact, without even a stain.—*La Salute, June*, 1874, *and Gaz. Med. Ital., Prov. Ven.*—*N. Y. Med. Jour.*

HENSCHEL ON ACUTE ERGOT POISONING.—Dr. Henschel reports a case in the New York *Medical Record* for September 1, 1874, where thirty minims of Squibbs' fluid extract of ergot were given by mistake to an infant. Soon afterward, there were severe abdominal pains, recurring every fifteen minutes, and lasting hardly sixty seconds. There were slight tetanic contractions of muscles of face and extremities. Diarrhœa set in four hours after administration, and continued fourteen days. He believes that this case proves that it is the uterine contractions, and not the ergot, that destroys the fœtus during labor.

THE *Paris Medical Record* is about to be issued in Paris, in the English language.

Book Notices and Reviews.

A PRACTICAL TREATISE ON THE SURGICAL DISEASES OF THE GENITO-URINARY ORGANS, INCLUDING SYPHILIS. By W. H. Van Buren, M. D., Professor of Principles of Surgery in Bellevue Hospital, Medical College, &c., and E. L. Keyes, A. M., M. D., Professor of Dermatology in Bellevue Hospital Medical College, &c. New York: D. Appleton & Co., 1874. St. Louis Book & News Co.

As stated in the preface to this new work, the progress made in the science of surgery requires that special branches be taught by separate text books; for, if not omitted, they can only be slurred over in works upon general surgery.

As the product of the joint labors of the authors, this publication is a complete resumé of the anatomy and surgical diseases of the genito-urinary organs, followed by the treatment proved and accepted by the authors and those of their co-workers most engaged in the cure of the diseases herein depicted.

Chapter I contains "Anatomy of the Penis," and the malformations and diseases of that organ. In this chapter is a description of five cases of "Chronic Circumscribed Inflammation of the Erectile Tissue of the *Corpora Cavernosa*," never before treated of in our text books. Phymosis and paraphymosis and their treatment are also given in this chapter.

Chapters II to VIII, inclusive, are devoted to "Diseases of the Urethra," including the anatomy and abnormities of this passage.

Gonorrhœa and Stricture are exhaustively treated of. No endorsement is given the abortive treatment of clap.

The methodic treatment of gonorrhœa dependent upon the normal course of the disease, as laid down in this work, is clear, practical, and good. The complications of clap are fully explained.

The articles on "Gonorrhœal Opthalmia" and "Gonorrhœal Conjunctivitis" are supplemented by Fourrier's table on the differential diagnosis of these diseases. As a cauterant in gonorrhœal conjunctivitis, silver nitrate is the only one recommended. (We have found potassa preferable, as liquor potassa 3 i. to aqua ʒ i. applied with a camel's hair pencil, the excessive action prevented by the free use of vinegar, and the parts washed clean with tepid water.)

Stricture of the urethra is freely treated of. The seventy-eight pages devoted to this subject make a complete monograph. At the close of the article a summary of the treatment of stricture is given and also a useful list of urethral instruments.

Diseases of the prostate occupy forty-eight pages, making three full chapters. The

anatomy and function of this gland are explained and every disease of it described and made clear. This section of the work will be found useful to practitioners (away from the larger cities,) where the services of those familiar with these most annoying and dangerous troubles can not be obtained. Chapter X contains a description of instruments used in hypertrophy of the prostate and an excellent description of the maneuvres employed in their use.

Chapters XII and XIII are devoted to "Diseases of the Bladder," including the anatomy and anomolies of that viscus. The succeeding ninety pages contain a succint description of "Stone in the Bladder" and the operative procedures for its removal; the relative merits of lithotomy and lithotrity are ably discussed and the various methods of cutting for stone fully explained and described.

These chapters on stone in the bladder are completed by a summary of the condition of the patient requiring lithotomy (in preference to lithotrity) by a history of the complications of lithotomy and by a list of instruments for stone.

"The few and unimportant diseases of the ureter" are next considered; then follows a review of "The diseases of the kidney." "Only such diseases are here dealt with as are most frequently encountered by the practitioner interested in genito-urinary surgery," "or such as may require instrumental interferance for their relief," and the thirty pages of the work given to this subject are unexceptionally good and instructive.

Chapter XXI treats of the scrotum—anatomy, injuries and diseases. Phlegmonous erysipelas of the scrotum is fully described. Elephantiasis scroti is briefly spoken of. (This disease is rarely seen in our country, it is peculiar to the tropics. In one of the Cape de Verde islands we saw quite a number of cases. We remember one old man, a beggar, whose enormous scrotum he wheeled before him on a small wheelbarrow, thereby making himself an object of curiosity and charity.

For the destruction of crab lice (pediculi pubis) the old and certain parasciticide, mercurial ointment, is not spoken of. This remedy or a simple infusion of Larkspur (the seed of Delphinium Consolida) can always be depended upon.

Chapters XXII to XXV inclusive, contain "The Anatomy, Anomolies and Diseases of the Testes." The portion devoted to the various forms of hydrocele are excellent. Epididymitis and orchitis are clearly explained and their treatment indicated. On pages 440, 441 and 442 is given a valuable (differential) diagnostic table of chronic enlargement of the testicle. Castration, dermoid cysts of the testis, irritable testis and neuralgia testis complete this section.

Chapter XXVI is devoted to "Maladies involving the genital function." True and false impotence, self-abuse, self-pollution, spermatorrhœa, erotomania, satyriasis, priapism and aspermatism being the diseases treated of. This interesting chapter is truly *multum in parvo*.

Chapter XXVII treats of diseases of the cord, including varicocele. "All operations proposed for varicocele have been attended by fatal consequences, and it is unsurgical to endanger life for a disease in itself harmless," (page 471,) palliative treatment should suffice. If an operation is deemed unavoidable, (for reasons given page 471,) "in the vast majority of cases, * * * cutting off the redundant scrotum is the only allowable one. There is so much difference of opinion concerning this, seemingly simple, operation that the remarks of the authors are of special value.

Chapter XXVIII discusses the diseases of the vas deferens and seminal vesicles, and completes the first part of the work. Part second, "Chancroid and Syphilis." The first two chapters treat of chancroid, its peculiarities, complications (including bubo) and treatment. (In using hydrogen nitrate for chancroid we have found the pain instantly allayed and the good effects of the acid not interfered with by covering the part with soda bicarbonate immediately after applying the acid.) The two chapters on chancroid are exceedingly good, and make an invaluable monograph for every practitioner wishing to know all about the subject that is worth knowing.

The remainder of the work, one hundred and sixty pages, is devoted to an exhaustive review of syphilis.

In calling attention to this new work we have already exceeded the space assigned us in the RECORD, we will only add to what we have said, that no other similar publication is more deserving of the attention of the profession. The book is issued in the always excellent style peculiar to the Messrs. Appleton. J. T. L.

CLINICAL LECTURES ON VARIOUS IMPORTANT DISEASES. Being a collection of the clinical lectures delivered in the medical wards of Mercy hospital, Chicago, by Nathan S. Davis, A. M., M. D., professor of principles and practice of medicine, and clinical medicine, in Chicago Medical College. Edited by Frank H. Davis, M. D. Second edition, enlarged. A handsome royal 12 mo. vol., cloth, of 288 pages. Philadelphia, Henry C. Lea, 1874. For sale by Gray, Baker & Co., St. Louis.

Though this work cannot be considered a complete one on clinical medicine; yet it is replete with valuable hints for medical students and those whose practical experience has been limited.

The style is entertaining, terse and to the point,

However, we cannot indorse the *old-time anti-phlogistic* and *depressing* treatment of Prof. Davis. Such, for instance as the administration of Antim. et. potass. tartras. for the relief of bronchitis occurring in a patient suffering from typhoid fever of a low form, where there was hypostatic infiltration of the lower lobes of the lungs, or the application of blisters to the chest conjoined with the exhibition of Antim. et. potass. tart. in pneumonia complicating a case of typhoid fever in an advanced stage. Again this tartar emetic is prescribed for a chronic bronchitis in a patient under treatment for "chronic ague" who, he says, is in a "spanæmic condition."

In speaking of the treatment of pneumonia the Doctor strongly advocates the early use of the lancet. He says, "that to omit it in the first stage of the more active and severe cases, is to greatly increase the danger, and protract the sickness of the patient."

While we consider the therapeutics faulty, we deem this collection of clinical lectures one of real value to the vast majority of medical men. S.

ESSENTIALS OF THE PRINCIPLES AND PRACTICE OF MEDICINE. A Hand-Book for Students and Practitioners. By Henry Hartshorne, A. M., M. D., Professor of Hygiene in the University of Pennsylvania, etc., etc. Fourth Edition, thoroughly revised; with one hundred illustrations. Philadelphia: Henry C. Lea, 1874. For sale by Gray, Baker & Co.

This valuable hand-book has now attained its fourth edition, evidencing the appreciation in which it is held by practitioners as a work of ready reference, and by students as an indispensable *vade mecum* while in attendance upon lectures. Prof. Hartshorne possesses in an eminent degree the happy faculty of putting in a small compass the really essential, and ignoring the unimportant and superfluous. Although we do not agree in ever particular with the author's therapeutics, we think every physician should have this book in his library.

THERAPEUTICS AND MATERIA MEDICA. A Systematic Treatise on the Action and Uses of Medical Agents, including their Description and History. By Alfred Stillé, M. D., Professor of the Theory and Practice of Medicine in the University of Pennsylvania, etc., etc. Fourth Edition, thoroughly revised and enlarged. In two volumes. Philadelphia: Henry C. Lea, 1874. For sale by Gray, Baker & Co.

This standard work on materia medica and therapeutics needs no new commendation at our hands, except to state that it has been very thoroughly revised to date.

BOOKS AND PAMPHLETS RECEIVED.

SIXTH Annual Report of the New York Orthopædic Dispensary and Hospital.

TRANSACTIONS of the American Medical Association. For sale by the St. Louis Book & News Co.

TRANSACTIONS of the New Hampshire Medical Society, (eighty-fourth anniversary,) held at Concord, June 9 and 10, 1874.

ELECTROLYSIS IN THE TREATMENT OF STRICTURE OF THE URETHRA. By Robert Newman, M. D., Reprint from the Transactions of the Medical Society of the State of New York.

CROUP IN ITS RELATIONS TO TRACHEOTOMY. By J. Solis Cohen, M. D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest in Jefferson Medical College. Philadelphia: Lindsay & Blakiston, 1874.

A GUIDE TO THE PRACTICAL EXAMINATION OF THE URINE. For the use of physicians and students. By James Tyson, M. D., Hospital Lecturer on Pathological Anatomy, University of Pennsylvania, etc., etc., with a plate and numerous illustrations. Philadelphia: Lindsay & Blakiston, 1874. For sale by Gray, Baker & Co.

CLINICAL LECTURES ON DISEASES OF THE URINARY ORGANS. Delivered at University College Hospital. By Sir Henry Thompson, Surgeon Extraordinary to His Majesty the King of the Belgians, Professor of Surgery in University College Hospital, etc. Second American, from the third English edition, with illustrations. Philadelphia: H. C. Lea, 1874, For sale by the St. Louis Book & News Co.

Miscellaneous Notes.

THE eleventh annual Opthalmological Congress met at Heidelberg, September 26, 1874.

A SCHEME is on foot looking to the establishment of a special medical school for women in London.

THERE were 1,109 medical students in attendance upon the winter session, and 1,036 attending the summer session of the University of Vienna.

THE Simpson Memorial Fund, which is now in excess of £6,000, is to be expended in part for a new maternity hospital, and in part for a collossal statue of the great gynæcologist.

ALBUMINURIA FROM COLD BATHING.—Dr. George Johnson (*British Medical Journal*) details four cases in which prolonged bathing in cold water was followed by temporary albuminuria. Three of the cases were healthy young men, from twenty-two to twenty-five years of age, and one a boy of sixteen. In one of the young men there was, almost daily, presence in the urine of the albumen, for about three weeks. The boy had bathed daily in the sea for a month, remaining in the water from a half to three-quarters of an hour. It was more than three months after ceasing the baths that the urine ceased to be albuminous.

NELATON'S METHOD.—In a postscript to the edition of Stillé's Materia Medica, the author states that in his article on chloroform, it is said that death from this agent may be due either to asphyxia or to syncope. For the latter accident various stimulants are mentioned as the appropriate remedies, but the most rational of all, and perhaps the most efficient, he confesses was unknown to him when the text was written. He declares there is now reason to believe that the true remedy for this condition of imminent or even apparent death has been discovered by Nélaton to consist in immediately placing the patient's head in a depending position, as is done in cases of syncope from hæmorrhage. This subject was elucidated in some remarks by Dr. Marion Sims, before the British Medical Association, in the summer of 1874.

EXPLOSIVE MEDICINES.—Young men are warned (*Revue de Thérapie*, 1873,) against combining in their prescriptions certain agents, which, in case of the development of any acid, or even if exposed to a moderately high temperature, are liable to *go off*. Among these dangerous formulæ may be cited a prescription for pills not unfrequently employed in England, composed of nitrate of silver, extract of nux vomica, muriate of morphia, conserve of roses and extract of gentian, which, when affected by the development of heat, will speedily explode. In like manner, pills made of nitrate of silver and creosote, or carbolic acid, will very soon generate heat sufficient to induce spontaneous combustion. Still more surprising to the occupants of the sick chamber is the energetic explosion (suggestive of nitro-glycerine) arising from the pills or mixtures of which oxymuriate of potash forms an ingredient.—*Druggists' Circular.*

CHEMISTRY ON THE STAGE.—The papers tell us that a new sensation is to be introduced on the stage. An actress fixes a dose of poison for her rival; then in a French fit of virtue and remorse, gulps the dose herself, directly has a pain, a worse one, a pang, a cramp, and finally convulsions, during which her face, neck and arms go through the changing hues of white to gray, gray to purple, and purple to black; when she very properly dies. This is accomplished by the application of some wash to the skin, and the turning on at the proper moment of some vapor or gas, which acts upon the chemical property of the cosmetic worn. The effect is startling and very sensational. A well-known actress from another theatre fainted at the first performance of this death and its variegated complexion. It is not difficult to perform, however. The cosmetics contain bismuth or lead, and the floor or pillow upon which her head rests is sprinkled with a solution of sulphuretted hydrogen.—*Scientific Press.*

THE report of the medical statistics of the late Provost Marshal General's Bureau, which has been in process of preparation by Dr. J. H. Baxter, Chief Medical Purveyor of the United States Army, is now nearly ready for publication, and only awaits the completion of lithographing angular diagrams, and tinted maps, illustrating the relation of disease to social condition, complexion, age, height, nativity, occupation and locality. This report is deduced from the minute physical examination of nearly two millions of men examined by surgeons on the basis of enrollment throughout the United States during the war, and contains facts of great interest to the medical profession, illustrating as it does the physical aptitude of this nation for military service, and showing the prevalence of disqualifying disease in the various States and Congressional districts. Over one thousand pages have already been stereotyped, and the work when completed will be in one volume quarto, containing about twelve hundred pages. This is a public document to be distributed by Congress. It would be well that medical gentlemen and others interested in this subject should, by timely application to their senators or members, secure a copy when published.

THE ORIGIN OF THE TRANSFUSION OF BLOOD.—You state in your annotation that Dr. Chereau, well versed in chronological research, has shown that the first idea of transfusion originated in France, and was suggested by a friar in 1651. I think a further search into history will show that the operation had been put in practice long before this; at all events, transfusion was performed on Pope Innocent VIII more than one hundred and fifty years before the above mentioned date. The circumstance is mentioned by Sismondi and others, but the following is taken from Villari's "Life of Savanarola:"

"The vital powers of Innocent VIII rapidly gave way; he had for some time fallen into a kind of somnolency, which was sometimes so profound that the whole Court believed him to

be dead. All means to awaken the exhausted vitality had been resorted to in vain, when a Jew doctor proposed to try to do so by the transfusion of the blood of a young person—an experiment that had hitherto only been made on animals. Accordingly the blood of the decrepid old pontiff was passed into the veins of a youth, whose blood was transferred into those of the old man. The experiment was tried three times, and at the cost of the lives of the three boys, probably from air getting into their veins, but without any effect to save that of the Pope. He expired on the 25th of April, 1492, and without loss of time they set about the election of his successor."—*Samuel Willis: London Lancet, Oct.* 17, 1874.—*Clinic.*

THE following amusing rhymes, extracted from a daily paper, have a very good moral of their own, which in the devious path of the practice of medicine it is worth one's while to ponder:

A DOCTOR'S STORY.

Mrs. Rogers lay in her bed,
Bandaged and blistered from foot to head,
Bandaged and blistered from head to toe,
Mrs. Rogers was very low.
Bottle and saucer, spoon and cup,
On the table stood bravely up;
Physic of high and low degree;
Calomel, catnip, boneset tea;—
Everything a body could bear,
Excepting light and water and air.

I opened the blinds; the day was bright,
And God gave Mrs. Rogers some light.
I opened the window; the day was fair,
And God gave Mrs. Rogers some air.
Bottles and blisters, powders and pills,
Catnip, boneset, syrup and squills;
Drugs and medicines, high and low,
I threw them as far as I could throw.
"What are you doing?" my patient cried,
"Frightening Death," I coolly replied,
"You are crazy!" a visitor said;
I flung a bottle at her head.

Deacon Rogers he came to me;
"Wife is a comin' around," said he,
"I re'lly think she will worry through;
She scolds me just as she used to do.
All the people have poohed and slurred—
All the neighbors have had their word;
'Twas better to perish, some of 'm say,
Than be cured in such an irregular way."

"Your wife," said I, "had God's good care,
And His remedies—light and water and air,
All the doctors, beyond a doubt,
Couldn't have cured Mrs. Rogers without."

The deacon smiled and bowed his head;
"Then your bill is nothing," he said.
"God's be the glory, as you say;
God bless you, doctor, good day! good day!"

If ever I doctor that woman again,
I'll give her medicines made by men.

DEATH FROM NEGLECT AND OVERWORK.—Dr. Todd died in the night, of intestinal hemorrhage, whilst carrying on an enormous and wearing practice, and after his usual hard day's work. A post-mortem examination showed that he was suffering from cirrhosis of the liver, which had occasioned the hemorrhage. Now, no man can die of such a disease without having been and felt very ill for months; and so accomplished a physician would never have been entirely mistaken in his own case, and fancied himself quite well when he was ill enough to die. Still he never stopped, but went on to the last. Dr. Brinton died suddenly of uremia, also in the midst of his work, and then it was found that he had been suffering from chronic albuminuria in an aggravated form for several years and knew it! Still he never stopped. Dr. Forbes Winslow had a very severe illness four or five years ago—stone in the bladder and pleurisy—which kept him in his bed-room for months, and left him an invalid. Still he repudiated the warning, and went on, winter and summer, with his large practice and heavy professional duties, to die four years later of albuminuria, foreshadowed by the former illness. Lastly, Dr. Frederic Bird, whose death is still recent, passed away in a few days in June, of bronchitis. Such a form of death in mid-summer, in an apparently sound man, indicates complete organic exhaustion; it indicates that the vital powers have been so worn by constant and incessant labor that he could not survive one of those accidental attacks of every day illness which ought only to kill weak, sickly children, and aged, worn-out men and women.—*London Lancet.—Pacific Med. and Surg. Journal.*

HERMAN GOLTZ.—I have often sadly meditated on the wasted life of poor Herman Goltz. He passed many years in anatomical examination of the human brain, endeavoring to discover some coincidence between its marvelous structure and its important uses. To this end the whole concentrated force of his acute intellect was directed. Sometimes he was elevated by the hope that he had ascertained the source of the reasoning faculties, and the seat in which the passions are generated; but those gleams of success were transient, and were succeeded by total obscurity.

At one period he conceived that he had actually drawn aside the curtain, and beheld the mysterious processes that are performed in this occult laboratory of nature, but he confessed himself deceived, and afterwards acknowledged that the curtain itself was a delusion. Exhausted by these sudden alternations of hope and disappointment, the fabric of his understanding gave way, and in a moment of despair he hanged himself in his dissecting room, and was nearly devoured by the rats before his loss was discovered and his fate deplored.

Before he accomplished his last resolve, he wrote on a slip of paper these impressive words: "For more than twenty tedious years I have pursued a phantom that has decoyod me into ruin and misery. My vision has become so dim that I can no longer distinguish the objects of my research; my hand is too tremulous to hold the scalpel. Confined in this charnel-house, I have been estranged from na-

ture's fair and inviting prospects; have cultivated no man's friendship, nor sought for the affection of woman. I have, indeed, read of the charms of society, the exhilarations of wine, the delights of a domestic partner, and the blessedness of children; but I have been a solitary student; water has been my only beverage; no female can reproach me for professions, no child curse me for existence. To live longer is useless; the past has been misemployed, the present is wearisome, and I will anticipate the future.—Cleland—*Detroit Review.*

PROGRESS OF SCIENCE.—A writer in the *American Observer*, a standard homœopathic journal published in Detroit, claims to have obtained, through "experiments prosecuted through a long series of years," decided results from "olfaction" and, more especially "by means of medicine contained in closed vials held in the hand." This beats moonshine. The same journal has an article from the editor, Prof. E. M. Hale, reporting cures of epilepsy, hysteria, chorea, Gonorrhœa, etc., by tarantula.

We read further, that at the annual meeting of the Pennsylvania State Homœopathic Society, the claims of another spider were presented:

"Dr. M. Preston said he had proved Mygalé clinically and cured the following symptoms: Twitching of the muscles and shrugging of the shoulders, returning every day; the child could not stand; jerking up of the lower limbs, complete inability to walk or stand; acute aching in the right ear, occurring every night between midnight and morning, driving her out of bed; constant motion of the hands and arms. Mygalé, sixth potency, was given, and relief was obtained in twenty-four hours, although other remedies had failed, and the case was cured in three weeks."

It might be satisfactory to a patient taking "Mygalé," of the sixth potency, to know that a single spider done up to the sixth potency, would supply every individual on the face of the globe with one dose every day for upward of three years.—*Pacific Journal.*

STAMMERING.—Our foreign exchanges report that the treatment of this defect is now carried on with much success in France, by M. Chervin. His method has been the subject of a favorable report to the Academy of Medicine, in which we find a sketch of the system. The training begins by a respiratory practice, in which the patient learns to steady his voice whilst regulating the respiratory rythm. Then follows the practice of vowels, which, in fact, constitutes the gymnastics of articular phonation. Lastly comes the demonstration of the functions which the tongue and lips have to perform, and of the shape which the mouth should assume in the pronunciation of ea h letter of the alphabet. This concludes the initiatory practice. Afterward we have the combination of letters, vowels, and consonants in the different respective positions which they may occupy; and finally, words and periods, with the intonation and expression which they require. The whole consists in gymnastically educating the organs of speech, the excellent results being due not so much to actual muscular work as to the precision with which the practice is carried out. The success depends on an effort of the will on the part of the patient to reproduce with the utmost precision a particular movement. The will of the teacher must take the place of the patient's will, as the latter is unable to regulate the movements dictated by it.

M. Chervin justly remarks that stammering is a kind of chorea of the muscles of respiration and phonation. To remedy this he advises slow and measured gymnastic exercises of respiration, this being the first part of the treatment. It is shown above that he combats the unruly movements of the tongue and lips by subjecting these organs to muscular exercise. This method seems thus perfectly rational, and the government has been advised by the Academy of Medicine to give M. Chervin pecuniary support.—*Medical and Surgical Reporter.*

Home News.

DR. G. F. DUDLEY having been elected Coroner, the position of Health Officer is now vacant.

Married—On the 2nd of November, at the church of the Immaculate Conception, in this city, Dr. Alex. J. Mullen to Mrs. Alice Dillon.

IT is a pity to spoil a brilliant sensation, especially one so complete in its details as the "Bust of Venus" story, telegraphed from here to the Chicago papers—but truth must be vindicated; and we advise the genius who got it up to beware of the *busts of Bacchus*, lest they get his imagination into difficulty again.

WE will have from this time on a short-hand reporter regularly engaged upon the RECORD, in order that we may obtain the most accurate reports of lectures, proceedings, and all other matters likely to interest our readers. We intend to spare neither energy, time, nor means in our efforts to place our paper in the van of medical journalism.

Original Communications.

CHILDREN'S CLINIC.

PROF. GEO. W. HALL'S CLINIC, ST. JOHN'S HOSPITAL—REPORTED BY DR. J. P. KINGSLEY.

CASE I.

Ulcerative Stomatitis.—May 9. John Mœhr, six years old; mother says he had a chill three days ago, but none since; has constant fever; complained of sore mouth on day of chill; unable to eat solid food on account of pain produced in mouth; has not been as well as usual for some time. Looks pale and anæmic; breath offensive; gums swollen, red with white patches in places—painful; inside of lips and cheeks covered with a gray exudation.

The case before us, gentlemen, is evidently ulcerative stomatitis—a disease which you will frequently meet with among the young. It is properly an infantile disease; yet you will sometimes meet with it in adults. It has long been recognized by medical writers under many different names, with which I will not burden your memory. Hippocrates and Aretaeus make mention of the disease; Galen also alludes to it. I would call your attention, gentlemen, in these cases that come before us, more particularly to the condition of the patient than to any name we may give the diseases with which they may be suffering. You must always bear in mind the necessity of having the remedial agents you prescribe applicable to the condition of the patient independent of any name attached to that condition.

There is always, in these cases of stomatitis, some derangement of the stomach and bowels, or rather of the digestive organs. The patient before us is rapidly becoming emaciated, first, because the food taken is not digested; and secondly, because mastication gives him excessive pain—so great is the pain that he refrains from eating solid food.

In severe cases, with infants, nursing is out of the question; it becomes necessary to feed them with a spoon. We may consider the case before us a typical case—nearly all the prominent symptoms of the disease being present. The disease is of variable duration; generally speaking, it is not a serious nor a tedious disease. Very much however depends, as in many other diseases of a debilitating character, upon the constitution and condition of the patient, and upon the complications which may ensue. As it is necessary to support the strength of the patient, we must direct a nourishing diet in a fluid or semi-fluid form, as beef tea, soup, etc. Chlorate of potash has long been a favorite remedy in inflammations of the mucous membranes of the mouth; it is used both topically and internally. When administered internally it acts as a continual topical application, if repeatedly administered. It being a sialagogue, it reappears in the glandular secretions of the mouth, which secretions come in continual contact with the entire mucous membrane, and thus produces, at least in part, its specific effect. Its action may be also due in part to the yielding up of its chlorine and oxygen.

℞ Potass. chloratis, gr. xxiv.
Syr. Aurant. Cort., ʒ iii.
M. S: Teaspoonful every two hours.

May 12—Condition very little improved; talks with some difficulty on account of the effort producing pain; deglutition painful; somewhat more emaciated.

The inflammation in this case, gentlemen, while it has slightly subsided in the anterior portion of the mouth, has extended posteriorly, involving the fauces, thus making deglutition difficult and painful, as well as the act of speaking.

We will continue the chlorate of potash, and, inasmuch as the patient's appetite is becoming defective, and he is becoming perceptibly emaciated, we will direct in addition:

℞ Ferri Pyrophos., gr. xxiv.
Syr. Aurant. Cort., ʒ iii.
M. S: Teaspoonful every two hours, or one hour after each dose of the potash.

May 14—Had a fainting spell yesterday has eaten but little, takes no solid food; quite debilitated; talks much better; appearance of mouth improved..

The patient has partaken of such a small amount of food that he has become very weak, which accounts for the "fainting spell" the mother speaks of. We see, however, from the condition of the mouth, that the patient has commenced to improve. We will direct to-day, in addition to the continuation of the iron and potash, a mouth-wash, or gargle.

℞ Acidi Carbolici, gtt. x.
Aquæ, ʒ iv.
M. S: Use as a gargle every two hours.

May 20—Convalescent. Continue the iron only.

CASE II.

Idiopathic Pericarditis.—July 16. Katy Bruen, ten years old. Her mother says she called in a physician to see her a month ago, when she was taken suddenly ill, and he informed her that she could not live twenty-four hours, as she had heart disease. Her feet were swollen, she was delirous at times, became pale and thin, has coughed a little ever since; has complained of pain about her heart; has been unable to play or exercise violently without suffering pain in heart; has had constant fever, has not had rheumatism, pleurisy or pneumonia.

Pericarditis, gentlemen, is comparatively rare in childhood; in infants, however, it is often not recognized until a *post mortem* examination reveals the fact, and this teaches the necessity of examining every organ in obscure diseases. Where pleurisy or pneumonia exists at the same time, the diagnosis is difficult. We can, in fact, only surmise the existence of pericarditis by the undue disturbance of the circulation and respiration. The history of the case before us, as given by the mother, points to heart trouble. We seem to have before us an uncomplicated case, which is unusual. You will more frequently find pericarditis following some inflammatory disease, as pneumonia, pleurisy or rheumatism, and more particularly the latter.

We find effusion has taken place, because there is dullness on percussion beyond the limits of the præcordial region; the pericardium is distended somewhat; the action of the heart is somewhat limited, and the sounds obscured by the presence of the fluid. Had we seen her at the commencement of the disease, we could have heard friction sounds, which are now masked by the fluid effusion. A cough is a common accompainment, although the lungs and pleura are not involued in the inflammation. There is pain on pressure over the heart, an increased rapidity in its action, being 130 per minute; also irregularity and feebleness; lividity of lips and face, the common accompaniment of diseases of the heart.

We will direct something to controll the action of the heart, which will, at the same time, act as a diuretic.

℞ Tinct. Digitalis, ʒ ss.
S: Five drops four times a day.

July 18—Pulse 120; has felt a little better; very little change. Continue treatment.

July 21—Feels better, coughs less, appetite improved, bowels regular, moans in sleep—pulse 112.

℞ Potass. Bromidi, ʒ ij.
Tinct. Digitalis, ʒ iij.
Syr. Aurant Cort., ʒ iij.
M. S: Teaspoonful three times a day.

July 28—Has felt quite well until to-day; some headache this morning, pulse 100, appetite good, sleeps well. Slight friction sounds appearing in cardiac region in consequence of the absorption of the fluid, area of dullness on percussion diminished for the same reason, less pain on pressure. Continue treatment.

CASE III.

Entero-Colitis.—Oct. 5. Jerry Lawton, thirteen months old; pale, anæmic, restless, feverish; vomits frequently, contents of stomach smell sour; discharges from bowels frequent and offensive, somtimes curd-like, sometimes greenish; abdomen painful on pressure.

We have here, gentlemen, a case presenting nearly all the prominent symptoms of entero-colitis. Entero-Colitis, or inflammatory diarrhœa, is a very common disease of childhood, and also a very fatal one. Among the most common causes are improper food, artificial diet, over medication. Starchy substances which are so frequently fed to infants greatly tend to produce this disease. The simple suspension of the farinaceous diet and the substitution of milk will frequently effect a cure in such cases. Over-feeding and giving food that is too solid may be enumerated among the causes, also the high temperature of summer, dentition and weaning may be mentioned as pre-disposing causes.

The investigations made by Dr. Woodward, during the late war, in cases of camp diarrhœa would seem to prove the anatomical lesions of the two diseases identical. First, there is thickening and softening of the mucous membrane, a rapid growth of cells in the affected parts, rapid multiplication or exfoliation of ep-

ithelium, rupture and discharge of contents of closed follicles, leaving a cavity which becomes ulcerated.

It was at one time supposed that the liver was involved in this disease, but the investigations of Smith and Hollowell, who found but one diseased liver in forty-six cases, has set this question at rest.

We will direct the following prescriptions:

℞ Bismuthi Subnit., gr. xv.
Div. in Chs. x.
S: One after each operation.

℞ Potass. Bromidi, gr. xxiv.
Syr. Aurant. Cort., ʒ j.
Aquæ Cinnamoni, ʒ ij.
M. S: Teaspoonful every three hours.

℞ Spice plaster to abdomen.

The sub-nitrate of bismuth is an insoluble salt, and consequently is not absorbed, or if so, to a limited extent. Its sedative effect is probably mainly due to its mechanical action, by affording a sheath to the inflamed surfaces, and thus protecting them from the irritating fluids and substances in the alimentary canal, besides to a certain extent absorbing them. The bismuth acts as a muco-sedative locally, while the bromide acts as a sedative to the nervous system through the circulation.

Oct. 10—Improved, less vomiting, fewer discharges, rests better, abdomen less painful on pressure. Continue treatment.

Oct. 13—Discharges more normal and fewer, not offensive; not feverish.

℞ Potass. iodidi.
Potass. bromidi, aa gr. xii.
Aquæ cinnamoni, ʒ ij.
Syr. aurant. cort.' ʒ j.
M. S: Teaspoonful every three hours.

Oct. 19—Improved; slight colic at times; becoming playful. Continue treatment.

Oct. 23—Convalescent. Continue last prescription three times a day.

SURGICAL CLINIC OF PROF. A. P. LANKFORD.

HELD AT THE MISSOURI MEDICAL COLLEGE, NOVEMBER 14, 1874.

CASE I.

Acute Coxalgia, with contraction of Adductor Longus and Pectineus Muscles—Operation and after treatment.—This little boy, Hermann G., has just turned his fourth year. He was a pretty healthy infant while at the breast, and until three weeks ago, when it was noticed by his mother that he had a perceptible limp and halt in his gait. The usual domestic remedies were resorted to without effect, for his locomotion became more and more difficult, and in one week he was unable to walk unsupported, or even maintain the upright position more than a few seconds. His rest was disturbed with twitchings and jumpings of the muscles of the affected side, which would awaken him at short intervals, crying out for pain. The leg was also observed to be drawn upwards, or in other words, the thigh was flexed upon the pelvis, and the leg upon the thigh, and this was a fixed condition. The muscles did not relax at night any more than in the day; nor could the limb be extended by pulling upon the foot and ankle, and these efforts gave him excruciating pain.

Now, you have the brief history of this case, and we will proceed with the examination. He must be made absolutely insensible with chloroform, entirely relaxed, before we attempt to manipulate the limb. (Chloroform administered.) Now, you will see by these tests that he is completely anesthetized, and yet the obstinate contraction of the faulty muscles continues. There is no possible yielding. A careful examination shows that the mischievous or affected muscles are the adductor longus and pectineus, and these have now been in this condition—which is daily growing worse—for over two weeks. Besides, I find tumefaction around the joint and some roughness. The history of the case, it should be borne in mind, points to this part as that first affected, while the stiffness and contraction of the adductor muscles was the second important sign observed.

His family history shows that he belongs to scrofulous stock, while the physical conformation of his body, color, etc., point to the scrofulous predisposition as one of his hereditaments. Summing up, briefly, then, we conclude, from the history of the case, from the history of the patient, and his condition as it appears from this examination, that this is a case of scrofulous coxalgia; the inflammation having been possibly excited by some of the numerous injuries from falls, blows and the like, which are hourly overtaking little children who, from the beginning, take life, as it were, in the "rough and tumble" way. The cause of the constant and firm contraction of these muscles exists either in the nerves or the muscles, that is, primarily. Perhaps it is one of those singular reflex phenomena depending on the neighboring diseased joint. At all events this joint must have rest. We seek to give it rest by extension and counter-extension, and the fulfillment of this indication is essential to recovery—it is a *sine qua non*. But we cannot

make extension and counter-extension without overcoming these shortened, contracted muscles, and the only way this can be done is to cut them sub-cutaneously—an operation which we will now perform in your presence.

[The patient was now anesthetized, and the muscles divided sub-cutaneously with a tenotome; the patient was then put to bed, and a four pound weight attached to the affected extremity and suspended over a pulley in the usual way. Cod-liver oil and the syrup of the phosphate of iron were ordered as internal treatment.]

CASE II.

Fracture of the Olecranon — Treatment by plaster splint upon dorsal aspect of arm and forearm—Rationale of treatment.—The patient was a little boy seven years of age. He had fallen nine feet, his elbow striking first. After demonstrating the diagnosis to his class, and explaining the pathology of the fracture, the Professor then referred to the principles of treatment, showing that in order to "disarm the triceps' muscle, and to force the lower fragment against the upper one, the forearm should be extended and maintained in that position. "We can, as you now see, readily extend the forearm and adjust the fracture; we can maintain it in that position by dressing it with plaster, thus." (A piece of muslin was folded upon itself four or five times, saturated with soft plaster, and then so applied as to embrace the dorsal aspect of the arm and forearm from the shoulder to the hand — leaving a space about an inch wide on the palmar aspect, from the shoulder down, uncovered by plaster.)

The Professor had introduced this method of dressing fractured patellæ into the City Hospital a little more than a yeae ago, and it had "in every case yielded good results." It would seem to be admirably adapted to support the fragments, control the muscles involved, and maintain, absolutely, the right position of the limb during treatment. It is at the same time as simple as effective. Should the dressing get loose by shrinkage of the limb, the extra space in the plaster case can be filled with smooth sheets of cotton wadding, and reapplied as before. And finally, the roller can be removed as often as necessary, and the limb examined, without moving or displacing the plaster splint, or disturbing the process of repair.

CASE III.

Permanent Enlargement of the Inguino-Femoral, and Lymphatic Glands of the left iliac Fossa, resulting in an enormous enlargement of the corresponding thigh and leg — A unique case—A Difficult Operation.—Ernest H———, thirty-six years of age; a tailor by occupation; married, and a native of Germany. Belongs to a healthy family, among whom, so far as can be learned, there has been no such disease as phthisis, or any scrofulous disease of note; nor has he ever had a venereal sore upon any part of the genitals. His general health is good, even at this time. Eight years ago he observed, he says, some "kernals" in his groin; but they were really below Poupart's ligament, and arranged in the base of Scarpa's triangle. These tumors did not excite his apprehension at first, but they seemed to run together and form one large mass; and now it was not long until the whole limb, from the crest of the ilium to the foot, began to swell. He advised with a physician, who treated him for some time without benefit. He has since been under the treatment, from time to time, of some of the ablest physicians of the city, but the tumors have been growing slowly, and the whole thigh and leg getting larger. When we examine these tumors we find them to be two large, round bodies, about the size of a large orange, pretty regular in outline, not much adherent to the surrounding parts, and movable to a limited degree. They both have a firm, inelastic feel, and seem to be of uniform consistency. One is situated just below Poupart's ligament, the other just above, and deep in the iliae fossa. From these characteristics, and the fact that they occupy the locality of lymphatic glands, we must conclude that they are enlarged lymphatic glands. And now, with regard to the enlargement of the thigh, leg and foot. This enlargement seems to be partly due to œdema, and partly to supernutrition. The whole extremity is almost three times the size of its fellow of the opposite side. What is the cause of this œdema, and what is the cause of this hyperplasia? Both are related to these enlarged glands as effect to cause. The contents of the lymphatic ducts must pass through these glands; but the glands being enlarged and altered in structure, prevent the passage of any lymph through them. Hence it goes on accumulating in the vessels until they are so distended, and their coats so attenuated, that they can no longer retain their contents, but they escape into the surrounding connective tissue, and part of this lymph being organizable, it becomes connective tissue under the influence of the plastic power of connective tissue corpuscles, or cells, as you please. But this is not all. These tumors press upon the great veins that carry the blood back to the heart—the saphenous and femoral externally and the iliac—and thus interfering with these returning currents of blood cause engorgement and œdema of the whole limb. So long, therefore, as these tumors remain we shall not expect any improvement of the man's condition, but on the contrary, the entire limb will, in my opinion, continue to grow larger; and this you now understand. So, after much thought, I have decided to attempt their removal, although such an operation will be attend-

ed with difficulty and dange.. We will have to expose the deep structures of Scarpa's triangle, almost to the bone, and in addition will have to open the abdomen to remove the tumor from the iliac fossa. This we will do in the middle line, making the dissection as in the operation of "ovariotomy."

The patient was put under the influence of chloroform and the tumor dissected out from Scarpa's triangle. It was glandular. The pressure had obliterated the saphenous and superficial femoral veins. The hæmorrhage was not great. An incision was then made in the linea alba about four inches long between the pubic bone and umbilicus and the dissection continued until the peritoneum was reached, which was carefully opened. The Professor then cautiously introduced his hand and with some difficulty succeeded in enucleating and removing the tumor from the abdomen, which was similar in structure to the first removed and about the same size. The incisions were then closed with silver wire and dressed in the usual way, after which the patient had a full dose of opium. He was doing well the next day.

CASE IV.

Chronic Disease of the left Ankle Joint, necessitating amputation—Operation.—M. D., aged thirty-three. Had syphilis eight years ago, and a fracture of the leg in the lower third two years after. Thirteen months ago he sprained his ankle, which was followed by violent inflammation, disorganization of the joint, and necrosis of the lower part of the tibia. At this time the astragalus is in a carious condition, as is also the lower portion of the tibia, while a deep excavated ulcer communicates with the joint, the soft parts being enormously swollen, and suppurating. There is nothing left for this man but an amputation to save his life. You see how low he is already reduced, and he is daily getting worse. The patient was here put under the influenca of chloroform and the leg amputated at the lower third. It was done by the Professor's favorite method, published heretofore in this journal. He came from under the influence of chloroform promptly and was doing well three days afterward.

At the date of publication, all the cases operated on are about well.

There were several cases of less importance presented at the same clinic, but we were unable to get reports of them.

GYNÆCOLOGICAL.—There has recently been established, in Philadelphia, a Gynæcological hospital and infirmary for diseases of children. The physicians in charge are, F. F. Reese, M. D.; F. A. McFerran, M. D., and Y. H. Leyfert, M. D.

Miscellaneous Reports.

DISCUSSION ON ALCOHOL IN THE ST. LOUIS MEDICAL SOCIETY.

REMARKS BY DR. WALTER COLES.

Mr. President:—At a previous meeting, I endeavored to make the following points in regard to alcohol:

1st. That on ingestion, less than ¼ is eliminated, leaving fully ¾ to be consumed in the system.

2d. That it acts directly as a temporary stimulant on the nervous system.

3d. That in proper doses, and under certain circumstances, it plays a salutary part in shielding the tissues from waste, by its own oxidation, and that by virtue of its vicarious office, it contributes to the support of the body.

4th. And as a corollary from the foregoing, that it is capable of serving, temporarily, at least, in the place of food, and may be properly considered as such.

5th. That in a healthy body, undergoing no special wear and tear, and receiving nitrogenous and carbonaceous aliment in sufficient abundance and proper proportion, it is unnecessary and even hurtful.

6th. That it is useful in most acute diseases accompanied with rapid destruction of tissue.

7th. That it should be cautiously given in all cases where there is serious impairment of respiration, hyperæmia, or inflammation of the lungs, liver or kidneys.

8th. That its presence in the stomach retards digestion, and hence it should not be given with other aliment, when that can be avoided.

I am not sure that I can render anything that I may have said on a previous occasion, plainer by enlarging on the subject to-night, nor is it my intention to attempt it, save in regard to one or two points wherein my views met with strong opposition on the part of several members.

It is in reference to the right to class alcohol under the head of food, that we propose to say a few words. But before we can discuss this question profitably, we must fix upon some definition of food which is mutually satisfactory. What is food? About as plain and simple a definition as we can give, is to say that food is any substance which, upon being swallowed, contributes to the support of the body. It will not do to exclude from the category of food such substances as do not, by assimilation, go directly to nourish the tissues; for, if so, we exclude certain elements which are essential ingredients in our daily bread. The readily assimilable constructive elements of our food are albumen, fat, water and certain

minerals. Yet, most of the articles which nature has provided for us to subsist upon, contain, also, starch and sugar, neither of which are found in normal tissue. No diet agrees with man so well as one containing a suitable admixture of all these elements. We presume, therefore, that no one will contest the generally accepted idea, that farinaceous and sacharine matters are elements of food essential to the welfare of mankind, or that when ingested in proper proportion, they contribute to health and to the support of the body. If we admit starch and sugar into the category of food, while at the same time claiming for them only the physiological property of consumers of oxygen, we scarcely see upon what ground the same prerogative is denied to alcohol, since they are nearly allied in chemical construction, and represent the three grades of change from one parent substance — starch, by which we have, first, starch, next sugar, and then alcohol.

We are not dependent upon mere theoretical considerations, however, in claiming for alcohol the properties of food. There are instances in which persons have subsisted for long periods wholly upon some of the forms of alcohol in common use, which have been vouched for, with examples, by Anstie, Inman and others. In such cases, the alcohol seems to have subserved the same purposes as the fat of animals during hibernation; the body absolutely subsists upon it, and it is entitled to be considered food in proportion to its vicarious consumption. Whenever carbinaceous aliment is deficient, alcohol can be substituted with advantage, since it evidently supplies fuel, and thus prevents the system from drawing upon such reserves as are essential to health. In disease, not only does it save the consumption of fat, but it prevents undue oxidation of all the tissues. It can only be advantageous, however, so long as the dose is in strict ratio with the emergency. We have already seen how its excessive administration, either in health or disease, may become hurtful. It is clear, also, that there must be a limit to the period when the tissues can be safely deprived of their oxygen through the superior affinity of alcohol for that element. As already shown at a former meeting, the property which alcohol possesses of robbing the tissues of oxygen, is only invoked for the purpose of bridging over a crisis, when we avail ourselves of its high oxidizing power as a choice of evils. For sooner or later, the time comes when the inherent vitality of all tissue molecules fail, and they must be renewed or else functional activity ceases. This renewal cannot occur, however, without the aid of oxygen, and when alcohol has been given so long, and in such quantities as to unduly withhold this needed supply, it necessarily works harm. This is the reason why alcohol does not aid men in the performance of prolonged physical labor; for, whilst it undoubtedly imparts temporary power, it is incapable of sustaining continued effort, on account of the deterioration of muscular power, growing out of a want of the very oxygen which the alcohol has consumed.

Notwithstanding these considerations, it has been clearly taught by experience that, under certain circumstances, and within certain limits as to time and quantity, alcohol may be made to subserve a useful purpose in offering itself for vicarous combustion.

Our argument, so far, has been confined within the scope of physiological properties accorded to alcohol by those who deny it a place among foods. And we have seen that even according to this view, it is as much entitled to be so considered as starch and sugar — elements composing a large proportion of vegetable aliment.

The arguments of gentlemen on the other side will not all bear close scrutiny. They give, as reasons that alcohol cannot serve the part of food—

1st. That it is itself the product of a retrograde metamorphosis, and that this is the only instance in the history of physiology where so base a substance is ranked as aliment.

2d. That alcohol, as such, enters into no normal tissue, and that even in those cases where it contributes secondarily to an increment of bulk, the tissues are not healthy.

In regard to the first objection, I shall say but little, save to show that there is no such rule, either in the lower animals or in the human family. And if we prove that the law fails in one case, there is no reason why it should not fail in others. We all know that there is no such law in regard to the diet of inferior animals, since many of them subsist entirely on decomposing substances. And when we come to man, there are many exceptions other than fermented liquors, the use of which, seems to have been coeval with the race, and for which he has a relish which is almost as instinctive as for his mother's milk. As a strict matter of fact, there are perhaps few articles of diet even in civilized countries, in which some retrograde change has not already begun previous to ingestion. The amount of such metamorphosis which is tolerated depends solely upon education and habit. Many epicures like their game "*high*," as they term it, which is but another name for what others of nice palates would call "*spoilt*." Some savage nations subsist largely on putrid fish. Happily our gastric juice meets such impurities on the threshold of digestion and corrects them through its well-known antiseptic properties. But even the most fastidious appetite often craves food after it has undergone retrograde metamorphosis, and had generated within it changes which bear precisely the same relationship to the parent substance that alcohol does to sacharine and starchy matter. Take that type of nature's food — milk, for example;

when fresh, it is sweet, from the sugar-of-milk which it contains. On standing at an elevated temperature, however, its whole chemical composition is broken up, and its sugar is converted into lactic acid, while it separates into curds and whey. Yet, most of us like clabber, and there are few things better than butter-milk. The fresh curd of milk is comparatively simple. But by an artificial ferment (rennet) retrograde metamorphosis is induced, and we have that much-prized article of food, cheese—an analysis of which, indicates that it has progressed far in chemical decomposition, and that it contains a large and surprising array of proximate principles; among the rest, prussiac acid and oil of bitter almonds. But it is needless to pursue this branch of our subject further, and we only cite these examples to show that there is no absolute law which excludes, as food, substances which have undergone that retrograde change in the relation of their chemical constituents, which we call decomposition.

The second proposition of our opponents embraces two distinct ideas: 1st. That alcohol does not go to form normal tissue; and, 2d, That in the obesity due secondarily to its use, the fat is not healthy.

That "alcohol fat," as my friend Dr. Prewitt terms it, is not normal in character, is true; but surely this circumstance alone is no reason why alcohol should be deemed incapable of producing healthy fat. For, in the instance cited, the condition is pathological, and not one of health. The drunkard's fat, like that of swine fed from a distillery, is soft and "slushy," not so much because they have imbibed alcohol, but because they have done so to excess. We claim, therefore, that the pathological changes induced by the abuse of alcohol do not properly enter into this discussion, since we all agree on that point. This question is rather, whether or not alcohol is capable, under certain contingencies and in proper doses, of subserving the part of food in the system?

This brings us to the point raised, that alcohol is unassimilable, or in other words, that it is not in itself a nutrient. Now, we confess frankly that we are unable to solve this question, nor do we propose to attempt it. It is one of those knotty points in animal chemistry which we are not yet prepared to dispose of satisfactorily. That it is closely allied, chemically, to many articles of natural food, however, is certain, and because it cannot be distilled from normal tissue is not a valid argument that it does not contribute to the nourishment of the body. The body is a vast chemical laboratory, the mysteries of which we have scarcely yet begun to fathom. Because we do not understand how a thing is accomplished, is no argument against its existence as a fact. We know, for example, that fat is formed by the union of certain chemical elements; we know, moreover, that fat can be elaborated out of food containing, when ingested, little or no oil. Chemistry teaches us that fat can be formed by the union of certain chemical elements which are themselves free from all trace of it. For instance, when nitric acid is made to act on pure fibrin, an oily substance is disengaged. Under certain circumstances, when the human body is buried under ground, it turns wholly to a fatty substance—adipocere. The livers of all animals manufacture sugar, which product is greatly increased by irritation of the roots of the pneumogastric nerves. This sugar producing function of the liver is sustained in the absence of all food, so that even when animals have been starved to death, it is still found in the hepatic cells, and alcohol can be distilled from the liver substance under the influence of a ferment. The liver likewise fabricates fat. It has been proven that many animals elaborate and become possessed of more fat than they can possibly get in the shape of oil in their food. This has been demonstrated in regard to ducks, and several of the inferior animals. Gundelach, Duncas and Edwards have experimented with bees, and proven that they will fatten and continue to make wax when fed exclusively on clarified sugar.

Now, we do not propose to discuss this question further, but simply ask, if fat can be physiologically evolved from sugar, why not from alcohol?

We beg leave to say, in conclusion, that we do not by any means argue that alcohol is a typical article of food. On the contrary, we have endeavored to show that it not only interferes with digestion, but that by virtue of its high oxidizible properties, it is unnecessary and unsafe. except in certain cases and under certain conditions, when it is proper to call it into requisition, in order to supply a temporary want in the system.

Whenever we thus invoke the aid of alcohol, however, we claim that we do so as a *ready method* of introducing hydro-carbonaceous material into the system, and hence substitute it for, and supersede with it certain elements of every day food, which act substantially in the same manner—as consumers of oxygen—only less perfectly and more slowly.

DR. E. M. BARTLETT'S SURGICAL CASES.

REPORTED BY CLAYTON KEITH, M. D.

CASE I.

ANCHYLOSIS OF THE PATELLA TO THE FEMUR RELIEVED BY THE INJECTION OF TR. IODINE.—Miss K. T., aged twenty years, had her knee injured by a fall, when a child. The patella became anchylosed to the femur; whether true

or false anchylosis occurred, I cannot say. I think, however, bony union resulted, as the patella was perfectly immovable. When presented to me, I found the ligamentum patellæ elongated to such an extent that her knee would yield whenever she attempted to walk. The flexor muscles of the limb had contracted until her knee was bent at an angle of forty-five degrees.

She called on me to amputate her leg. I refused, but promised to make a better limb of it than any artificial limb she could obtain.

Her health was good; there was no evidence of scrofulous diathesis in her family. Accordingly, I determined to straighten the leg and make a stiff knee by anchylosis.

I first applied an extension splint and directed her to give the screw one turn daily, until the limb became almost straight, and then return to me. She returned at the end of three weeks with the limb almost straight. I then introduced a trocar into the cavity of the knee-joint and injected tr. iodine and water, each one drachm, with a view of exciting inflammation and producing anchylosis. To my surprise, the injection produced very little inflammation —not sufficient to make it painful, causing only a little soreness.

I then injected two drachms of the saturated tr. iodine, strong enough to blister the cutaneous surface. This injection produced an irritation, which lasted forty-eight hours; but it did not excite active inflammation. I next introduced a seaton beside the knee-joint, passing the point of the seaton needle under the free edge of the patella and pricked it in order to excite inflammation, which I hoped would result in true anchylosis of the joint. The seaton was left to cut its way out.

At the end of two months she again returned, and requested me to inject her knee once more with tinct. iodine. I examined the limb and found the patella *free*. She had so far improved as to be able to walk without crutches, something she had not done for twelve years. I confessed to her that the case had beat me, and that I was agreeably surprised at the result, though it was different from what I intended when I began treatment. I did not expect to liberate the patella; my object was to excite active inflammation and make a stiff joint. I intended to excise the knee-joint, if I failed to produce anchylosis. I advised her now to let "well enough" alone, and told her she would recover the use of her limb without further treatment.

Fifteen years have passed, and the knee has not troubled her any since. She now has a serviceable limb; she walks almost as well as any lady. A close observer might detect a slight halt only.

My explanation of the result is as follows:

Instead of acting as an irritant and exciting active inflammation, the tr. iodine acted as an absorbent, and thus liberated the patella. Had I used the seaton alone, anchylosis would have been the result; but the iodine counteracted the effect of the seaton.

In all serous membranes there are two classes of vessels: 1. Secretive, and, 2. Absorbent. When the second class fail to absorb the fluid as rapidly as it is secreted, an accumulation is the result. The injection of tr. iodine establishes or restores the equilibrium between these two classes of vessels. In this case, I observed a puffiness about the joint, and found an abnormal amount of fluid within the synovial cavity on introducing the trocar. The tr. iodine promoted absorption, and thus loosened the adhesion of the patella to the femur.

I have injected tr. iodine in similar cases since, with similar results. I no longer hesitate in cases of hydrops articuli to evacuate the fluid and inject tr. iodine, I do not expect the iodine to produce adhesive inflammation, but merely irritation, and to restore the equilibrium between the secretive and absorbent vessels. Tr. iodine injected into synovial and serous cavities, as in hydrocele, hydrops articuli, etc., does not produce adhesion between the surfaces. I have repeatedly examined patients cured of hydrocele by the injection of tr. iodine, and never have I found adhesion between the tunicæ vaginalis and albuginea; the testicles were as free as before the injection. I examined them immediately after cured—sufficient time had not elapsed for adhesions to disappear.

My plan for radical cure of hydrocele is, viz: After evacuating the fluid, I inject 3 ij. tinct. iodine, undiluted, just sufficient to cover the serous surfaces, and allow it to remain; I never withdraw the injection. My patients usually recover in three weeks.

I am now waiting to perform an experiment. In a case of abdominal dropsy, uncomplicated with cirrhosis, albuminuria, or cardiac disease, I intend—after having warned my patient of the danger, and having gained his consent—to evacuate the fluid and inject tr. iodine into the abdominal cavity. I have great faith in the power of tr. iodine to restore to serous membranes the equilibrium between their secretive and absorbent vessels.

Louisiana, Mo., Dec. 15, 1874.

PRURITUS VAGINÆ.—A writer in the *Lancet* strongly recommends a dilute solution of the muriate of iron in this complaint, and also in pruritus ani. Its use is local, we presume, though it is not clearly stated.

BRONZE STATUE OF A PHILANTHROPIST.—Mrs. Bartlett's statue of Dr. Wells, the discoverer of anæsthesia, is to be cast in bronze, in one piece, and set up at Hartford, just as it comes from the mould.

Extracts and Abstracts.

PHYSIOLOGY.

CRITICAL AND EXPERIMENTAL RESEARCHES UPON THE EXISTENCE OF CENTERS FOR VOLUNTARY MOVEMENTS IN THE GRAY CEREBRAL CORTEX, AND UPON THE CONNECTIONS OF THESE CENTERS WITH THE GRAY NUCLEI AT THE BASE OF THE ENCEPHALON.

BY MM. C. CARVILLE AND H. DURET.*
Translated from *Le Progres Medical* of Oct. 24 and 31, 1874,
By WM. B. HAZARD, M.D., (BELLEVUE.)

In our two preceding communications to the Society of Biology, we have sought to establish: 1st, that the authors (particularly Prof. Ferrier,) who have attempted to demonstrate, by aid of electrical currents, the existence of motor centers for voluntary movements in the gray matter of the cerebral convolutions, have not avoided certain causes of error, especially that of the diffusion of the currents; 2d, that when anæsthesia of an animal is absolutely complete, electrization of the gray cortex no longer produces movement; whence, being supported by the opinion held by the majority of physiologists, that anæsthetics especially paralyze the *medulla oblongata* and ganglia at the base of the brain, we may conclude that, in these cases, electricity no longer acts because these ganglia are paralyzed; and that, consequently, when currents are applied to the surface of the hemispheres, it is these ganglia which are excited, and not the peripheral gray matter.

Now, we purpose: 1st, to briefly dispose of some objections which have come to us from several quarters; 2d, to endeavor to ascertain, by a more exact method, the actual existence of certain centers for voluntary movement in the gray matter of the convolutions; 3d, to examine by new methods the connections of the cortical substance with the *corpora striata*, the *thalami nervorum opticorum*, and the *medulla oblongata*.

I. By our former experiments we demonstrated the diffusion of currents which, it had been assumed, were localized in very limited regions of the gray substance, by collecting the diffused currents with an extremely sensative galvanometer and measuring the deflexion of its needle. M. Dupuy has also proved this diffusion by the use of a galvanoscopic frog's leg, which, being applied to the posterior portion of a hemisphere, contracted violently when the anterior part of the same hemisphere was electrized. This diffusion has been demonstrated for even the weakest currents, such as those employed by Ferrier in his experiments (bobbin at 10 cent). But we know that electricity is diffused not only over the surface, but throughout the substance; nevertheless, a certain quantity of the electric fluid in the latter instance seems to follow certain white fibres of the *couronne rayonnante* of Reil.

An American physiologist, Mr. Putnam, of Boston, nevertheless, thought he demonstrated that weak currents do not go beyond the gray cortex by the following experiment: He sought by a very weak current, for example, the center for the paws; then, these movements being well ascertained, he separated the gray layer with the blade of his scalpel, the gray layer, the seat of this motor center, by making a section in the white substance at a depth of two millimetres. He inverted the strip thus obtained, and electrized, *with the same current*, the surface of medullary substance thus denuded, and obtained no further effects. One of our experiments, already known, answers this objection: After having carefully scraped off the gray layer, which, according to Ferrier, represents the center under experiment, it is sufficient to very slightly increase the current (one or two degrees at most) to cause the movements to reappear *just as limited* as before.

Therefore, the integrity of the gray layer is not necessary for currents to produce movements absolutely similar to those caused by the excitation of the electrodes applied to the gray substance still intact. The necessity for this slight increase is sufficiently explained when we understand that the oozing of blood in wounds of the brain is very persistent, and that the blood, a saline liquid, is a good conductor of electricity, and increases the diffusion of the currents.

In a second experiment, Putnam replaced the strip which he had just raised, upon the white substance, it being still adherent by one of its sides to the rest of the gray matter. He then applied the current to the free, or meningeal surface of the strip; he obtained no further movements by weak currents. In this case, he says, diffusion ought to take place as if nothing had been done, and if the current no longer acted, it was because the integrity of the gray substance was necessary in order that localized movements should be manifested; it is its excitation alone which can produce them.

We will observe, that in this case again, the experimenter increases the causes of diffusion: it being impossible to prevent the presence of blood, or the formation of a clot under the strip; and, on the other hand, he cut the white fibers, which are the conductors of electrical currents to a distance. Now, if, in spite of this section, the current be very slightly increased (to compensate for the loss occasioned by the section of the strip), the movements return as strong and as well localized as before.

*Results of work performed in the laboratory of Prof. Vulpian and communicated to the *Societe Biologie*, (10 Oct., 1874.)

In our experiments, the greater the distance the section of the white fibers is below the gray centers, the stronger must be the current employed; in fact the amount of electricity which penetrates the depths of the brain, following certain groups of white fibers, becomes less and less, because, in its path the losses due to lateral diffusion weaken it more and more. If, then, we make a section very far from its point of departure, it is evident that the current must be increased to compensate for this dispersion in direct proportion to the increase of distance of the source of electrical supply. Finally, every section made near the foot of the radiating crown is accompanied by a very abundant flow of blood, because, as one of us, H. Duret, has demonstrated, in his researches upon the encephalic circulation, here are to be found the largest arteries of the cerebral pulp.

But here is an experiment which appears to us to show in a more conclusive manner still against the objections of Putnam, that the integrity of the gray matter is not necessary for the production of localized movements by the employment of electrical currents. After finding, by a very weak current (bobbin at 8 ct.) the center for movements of the paws, the gray substance at the points where the electrodes were applied, was destroyed by a cautery heated to a white heat. Then it is necessary only to apply the *same current* upon the eschar thus obtained to produce movements as well marked as before upon the members of the opposite side. In this instance it is not necessary to increase the current, for there is no flow of blood to favor its diffusion.

Therefore, we cannot admit, with Ferrier, "that it is the provoked and artificial excitation of the functional and normal activity of the gray cortex which produces the movement" *when we electrize* the convolutions.

Therefore, in our former communications, we could say, truly, that Ferrier's experiments did not demonstrate that the gray matter was excitable by electrical currents, for the currents act after its destruction by cautery.

But, if Ferrier's experiments do not indubitably demonstrate the excitability of the gray substance, shall we say that centers do not exist for voluntary movements in the cerebral cortex? We have attempted to search for the existence of these centers in the gray cortex by more precise experiments than those of Ferrier, and we will now epitomize the results which we have obtained.

II. *Of the existence of centers for voluntary movements in the gray substance of the convolutions.*—One fact has impressed us in verifying Ferrier's experiments; it is this: By applying the electrodes to diverse regions of the brain, different effects are produced; here movement of the fore and hinder paw—there movements in the face, elsewhere in the eyelids, etc., etc. In order to explain this variety in the effects produced, let us admit that, in different regions of the encephalon are distributed special fasciculæ of white fibres, which the current follows more particularly to act upon another center situated below. Thus, when we electrize the point indicated by Ferrier as the center for the movements for the paws of the opposite side, a special bundle of white fibers is there found to receive and conduct the current.

In order to be better understood, let us see what occurs when the central end of a sensitive nerve, the right sciatic, for example, is electrized. The current passes to the gray axis of the spinal cord, and there in the nerve cells determines such a modification that movement occurs in the limb of the opposite side. In this instance, the *electrical is substituted for the normal physiological excitant.* On the other hand, it seems demonstrated that the gray substance of the spinal cord is not excitable if it is acted upon directly, either mechanically or physically. In a word, something intermediate is necessary between the point of excitation and the gray axis, and this intermediate is the nerve tube (nerve, root or column of the cord): if this nervous tube does not itself conduct the excitation, no modification is produced. *The nerve cell reacts only when it is excited through the intermediacy of its nerve tube.*

The same facts hold good for the brain; the gray matter of the convolution, or of the cerebral ganglia, like the gray substance of the spinal cord, is not directly excitable; the excitation must reach it through the medium of nerve tubes.

In fine, when the gray matter of the brain is electrized, results are produced only because the subjacent white fibers conduct the currents to the gray centers situated below; these movements vary according to the regions excited, because the fasciculæ connected with each of these regions naturally follow different routes, and are probably connected with different gray centers located lower down. (When Ferrier, electrizing a portion of the cortical substance for a certain time, produced a general epileptiform convulsion of the opposite side, it was because the current was upon the surface and throughout the substance, and substituted its action throughout the extent of the cortical substance for that of the nerve cells.

Now, this variety in the disposition of the fasciculæ of the crown of Reil is not the work of chance, but answers to a physiological want. It is therefore possible that the cortical extremity of each of these fasciculæ corresponds to a special group of nerve cells, limited, physiologically, if not anatomically.

We are thus led back to the primitive idea of excitable points or centers in the gray cortex of the convolutions. But, immediately a serious question is raised: Are these points in the cortical substance *centers of voluntary motion*, or are they simply *perceptive centers?*

Note that whatever be the nature of these centers the conduction of the white fibers does not the less exist; it accommodates itself equally well to both hypotheses. Therefore, we must endeavor to ascertain with what species of excitable points or centers we have to deal. The electrical excitant is a bad means with which to experiment, for it is proved that it is diffused, however weak it may be.

We have had recourse to a procedure no longer new: the ablation of regions of the gray substance which might be considered as centers; but we have so perfected the manual procedure that the animal may live several weeks after the operation. We reserve the description of the operative method, and the observations in detail, for our memoir. We purpose here to merely indicate the results obtained.

In a dog anæsthetized by an intra-venous injection of chloral we uncovered the first external-superior convolution of the *right* side; according to Ferrier it is upon it that the center of movement is found for the fore and hind paws of the *left* side.

We sought by the aid of a very weak faradic current (bobbin at 8 cent.) the center in question; we then demonstrated very clearly, movements of *extension* in the toes of the paws, and in the fore-arm of both anterior and posterior extremities. After thoroughly studying and examining, at five or six different times, the movements produced, (no other point of the cerebral surface producing these effects when electrized in the same manner,) the entire substance of the gray layer was removed with a curette, as far as the white matter; we even encroached upon the latter to make sure that the whole of the gray matter belonging to this center was removed. After this ablation of the gray substance, we electrized the same region—it being bloody; yet it sufficed to push the bobbin to 6½ cent. to obtain *exactly the same results*. The wound was then carefully closed and the animal was allowed to recover. This operation was performed at 4 o'clock P. M.

At 8½ P. M., the animal had recovered On seeing us he attempted to rise upon his legs, but fell upon the left side two or three times in succession. He finally succeeded in maintaining the standing position, but he rested upon the *left* side, upon the back of the carpus of the fore foot, and upon the back of the toes of the hind paw. He then took several steps in the room, but he walked upon the back of the carpus of the *left* side. The toes and the metacarpus are fixed upon the radio-carpal articulation, and the animal supports himself upon their dorsal surface. There is therefore *paralysis of the extensors*. Neither the muscles of the shoulder nor those of the arm appear to be paralyzed.

The animal soon became more dextrous; no longer having extensor muscles to raise his paw, he threw it forward, and extended it by this singular process; then, as soon as the toes touched the ground, he pressed them strongly by the aid of his flexors, but sometimes he forgot his method and involuntarily walked upon the back of the carpus.

Posteriorly, the complete extension of the last segment of the member is not so essential in walking; here also the animal holds his paw in the semi-flexed position, carried slightly in front, because of the predominent action of the flexors. He often fell upon the left side, as if through awkwardness.

The next day the animal ate a pound of meat with good appetite. We verified the same phenomena: the animal generally walks upon the back of the carpus (left), and drags his hind paw.

The second day the dog is brought into the laboratory; he is easily able to stand upon all his limbs, and walks about the laboratory several times. He supports himself quite well both upon his left limbs; but we note that he often rubs the back of the nails of his left fore paw against the ground. There seems to be a sudden movement of detention at the instant that the toes touch the ground, by which it is put down abruptly.

The hind paw also seems a little heavy. Only at very rare intervals does the animal walk upon the back of the carpus as he did yesterday; he falls upon the left side only when he tries to turn suddenly to that side. When he lies down upon the left side, he falls at once, like a heavy mass.

The fourth day after the operation, only a little weakness remains upon the left side; he sometimes hits the toes of his fore paw against the ground. On the fifth day he appears completely cured of his paralysis.

This recovery continues on the sixth, seventh, eighth, ninth and tenth days after the operation. He was then submitted to a new experiment, which we will indicate further on. At the autopsy the lesion of the convolution was verified; it very nearly corresponded to the region pointed out by Ferrier.

Another dog operated upon in the same manner gave us precisely the same results; but he lived only four days, dying of hemorrhage.

We may therefore draw the following conclusions from these experiments: Excitable points or centers for voluntary movements *appear* to exist in the gray matter of the convolutions, *but the paralysis produced by ablation or lesion of these centers is transitory*. Further on, we will seek for an explanation of the cure of these paralyses.

III. *Of the connections between the centers of the gray layer of the convolutions and the gray ganglia at the base.*—Having found the center for the movements of the paws in a dog caused to sleep by chloral, when the peduncular expansion is cut at the level of the intra-ventricular nucleus of the *corpus striatum*, no

more movements are produced by the application of electrical currents to the convolution, whatever may be the intensity of the current. To effect this section, it suffices to introduce a small, soft and flexible instrument (a curette of red copper,) by the *corpus callosum* into the lateral ventricle of the same side; it is passed lightly along the floor of the ventricle, and when it is stopped by the external wall, the curette is buried in it, and the peduncular expansion is thus severed, at least in its anterior two-thirds. We have happily succeeded completely, in two cases, in performing this operation. The results obtained were always identical: this section absolutely prevents the current from producing movements. From this fact, it would appear that the integrity of the peduncular expansion is necessary in order that the action of the electrical currents should be manifested.

On the other hand, in two cases we have succeeded in almost completely removing the *corpus striatum*, the peduncular expansion remaining intact.

Now, after this operation, even weak currents (6 to 8 cent.) determined well marked movements in the paws of the opposite side. It results from this fact, that the currents follow the peduncular expansion, and pass below to act upon the ganglia of the *pons varolii* and the *medulla*.

After the section of the peduncular expansion, the animals may live two or three days. The paralysis of both members on the opposite side has each time been *complete*, and the animal has not recovered. In this instance the hemiplegia was characterized by absence of voluntary movement in the opposite side; when the animal was raised by the skin of the back, both right limbs (the section having been made on the right,) moved in the air while both left members hung inert and motionless. If we try to make him rest upon his feet, he sustains himself upon his two left legs; that is to say, upon those of the side of the brain lesion, while the two right legs are flaccid, and if he is not held up he falls upon the right side. (?)

An important question now arises: Why do the animals recover so rapidly when we are content with removing the center for movements of the paws in the gray cerebral cortex of one hemisphere? On the contrary, why do they remain hemiplegic when a section is made of the peduncular expansion (internal capsule) at the level of or below the *corpus striatum?*

According to an old theory, applied to aphasic patients who recover, and resuscitated by Brown-Sequard, Jackson, Broadbent and Ferrier, voluntary movements of both sides of the body are coördinated in each hemisphere for both sides. To make use of the picturesque expression of Brown-Sequard, we are provided with a *double brain*. According to this ingenious theory, the dog whose center of movement for the paws had been destroyed, and who recovered these movements in three or four days, owed his cure to the fact that, little by little, the hemisphere opposite the lesion, i. e., the hemisphere of the paralyzed side, learned to supply the place of the injured hemisphere.

This theory being supposed true, for an instant, we have sought by what system of fibers is the connection between the two hemispheres effected? There are three possible hypotheses: 1st. Do the fibers of the left hemisphere (supposing it is the right which is injured) which, passing from the right side, by the vault of the *corpus callosum* and the white commissures, govern this, side by action upon the *corpus striatum*, or which, simply going around the *nucleus caudatus*, without having any connection with it, descend in the peduncular expansion (internal capsule), and the cerebral peduncle of the right side to act upon the ganglia of the *Pons varolii* and *medulla oblongata?* 2d. Or do the fibers of the left hemisphere (supplying the place of the right,) which is injured in its cortical layer, simply descend in the peduncular expansion and internal capsule of the same side (*left*) in order to act upon the ganglia of the *Pons varolii* and of the *medulla* upon the right side, after their decussation; and there, while acting upon the *right* (the non-paralyzed side in our hypothesis), does it determine at the same time, the explosion of the centers of the *left* side in the bulbo-medullary gray axis, centers which are in immediate proximity? 3d. Lastly, a third hypothesis, is the vicarious action of the gray cortical centers of the hemispheres due to the action of the intra-ventricular gray nucleus of the *corpus striatum* located in the injured hemisphere?

We are now able to reject the first hypothesis. For, in the dog, the subject of the first experiment whose center for the paws had been removed, and whose transient paralysis we saw cured in three or four days (a case which persisted, as we have seen, seven or eight days), in this dog we divided the vault of the *corpus callosum* throughout its entire length. It is evident that if the complimental action of the *left* hemisphere (the center for the paws having been removed on the *right*), was effected by means of the commissure represented by the vault of the *corpus callosum* (that this supplementary action took place through the fibers of the *corpus callosum*, in connection with the *corpus striatum*, or passing by the side of it), it is evident, we say, that this section should cause the paralysis of the members of the *left* side to reappear.

As the animal was not asleep, we could, in half an hour, study the effects of this operation. Now, after this total division of the vault of the *corpus callosum*, which was afterward verified by the autopsy, the animal was able to walk about the room. He used all his

four legs very well; there was no paralysis. We were able to observe this absence of paralysis during the entire evening, and even a part of the next morning, but he died in the afternoon of the next day, of ventricular hemorrhage.

It therefore results from this experiment, that the supplementary action of the left for the right hemisphere being hypothecated, the communication cannot take place by the vault of the *corpus callosum*. It is therefore probable that the vault of the *corpus callosum* is only a commissure between the intellectual centers of the two hemispheres.

2. The second hypothesis, in our opinion, should also be rejected. As yet we have not made any experiment in this direction; but, in order to refute it, we may support ourselves upon a very common clinical fact. M. Charcot long since established the fact that cerebral hemorrhage most often takes place in the vicinity of the *corpus striatum*, and one of us, M. Duret, in his work upon the encephalic circulation, has given the cause of the frequency of hemorrhage in this region. If the internal capsule (the foot of the peduncular expansion) is cut entirely through, the patients are affected with hemiplegia of the opposite side, and this is never cured.

In these cases, the supplementary action of the hemisphere opposite to the one injured no longer takes place. Nevertheless, the peduncular expansion and the internal capsule, the peduncle itself of the healthy hemisphere, and are intact. We must thence conclude that the second hypothesis is inadmissible; the supplementary action does not take place at the level of the *medulla* or the spinal cord. For, neither the *corpus callosum* nor the peduncles of the hemispheres of the side opposite to the one injured are the routes followed by the nervous influx in the supposed case of the supplementary action of one hemisphere for another; and as there exists no other way of communication between the two hemispheres, we must make the deduction that *this vicarious action does not exist*.

3. The third hypothesis remains: the intraventricular gray nucleus of the *corpus striatum* is a *second center* for voluntary movements—a center of reinforcement or of concentration by connecting the centers dispersed over the surface of the convolutions.

This theory accords well with clinical observations; for, as we have said, hemiplegia is constantly the result of destruction of the peduncular expansion by extravasation of blood. But, under these conditions, the fibers which leave the *nucleus caudatus*, and which go by way of the peduncles, are destroyed also, because they pass into the internal capsule; this explains the impossibility of recovery.

On the other hand, it is a common clinical fact to meet with lesions which have been recovered from, sometimes in the external capsule, or in the *nucleus caudatus*, where hemiplegia lasting some time has never been observed. We purpose to communicate to the Society, at some future time, some experiments upon animals which successfully demonstrate the reality of this hypothesis.

If these facts are connected with the conclusions drawn from the experiments, which we have undertaken in common with Veysières, which he published in his inaugural thesis upon *Cerebral Hemianæsthesia*, it will be seen that the anterior portion of the peduncular expansion contains conducting fibers for voluntary movements (that they arise from the cortex of the convolutions, or from the *nucleus caudatus*), while the posterior fibers are sensitive. In fact, the section of the superior third of the peduncular expansion, at the level of the *optic thalami*, always produces hemianæsthesia of the opposite side. The clinical facts collected by M. Veysières (cases of MM. Charcot, Vulpian and L. Türk,) accord admirably with the results of experiments upon animals.

Case of Amalgamated Placenta.—Dr. E. A. Eakins (*Lancet and Observer*,) reports a case where, after waiting forty-eight hours after the delivery of the child for the extrusion of the after-birth, he anæsthetized his patient and found an hour-glass contraction. After overcoming this (and getting his hand into the womb, he says, "I could find no beginning to the placenta, and very little of a mass to correspond. * * * I accordingly began to pick into the mass, and having made an opening with difficulty, I succeeded in bringing a piece away about one and a-half by three-fourths of an inch in size. This was as perfectly organized as the tissue of the womb itself, with no decomposition whatever. I tried to remove more, but could not succeed." The case was then left to nature, and the patient supported.

The second day after confinement the patient had two chills, followed by a pulse of 150, and feeble; headache, coated tongue, tenderness over the womb, and no hemorrhage.

During the next two days the pulse ranged from 110 to 126; skin became moist, tongue cleaned off, and tenderness subsided. On the fifth day the cord passed away with great fetor, pulse rose to 150, and great tenderness over the bowels and womb was noted.

On the sixth day the pulse was 140, full and bounding; skin moist and cool, discharge scanty and offensive, and facies cadaveric.

On the eighth day, "threads" of placenta were expelled "about the size of a large twine, two inches long," and few in number.

The ninth day the lady was considerably jaundiced, and had a "fainting spell," which were attributed to biliary derangement.

On the tenth day the pulse was "114, full and regular; general appearance much improved; skin clear, moist and cool; no tenderness whatever," and the lochia became "more natural and abnndant, with *slight* hemorrhagic tendency." The patient now gradually improved until the fourteenth day, when there occurred complete paralysis of the left side. "Pulse 80, and *very* intermittant," which only lasted a few hours. Recovery was gradual from this to the twenty-seventh day after delivery, when she was discharged.

The Dr. closes with the following remarks:

"There are a few points of peculiar interest in this case which I propose to mention, requesting comments from the profession.

"I have had a great many cases of *retained* and *adhered* placenta; but I prefer to call this a case of '*amalgamated* placenta,' if we recognize such a name, and I believe we do, as I find two cases mentioned in Churchill's Obstetrics. In mention of this case to an aged and very reputable teacher of this subject, he said he regarded it as simply an *adhered* placenta. Now, as much as I regard the opinions of those having given the subject their life-study, I beg to differ in this opinion. I believe we should class as 'adherent placentas,' those *adhering* and *finally* coming away; as '*amalgamated*,' those *perfectly* adherent, having no points of detachment, and *never coming away*.

Now, I believe this case in point to be an 'amalgamated' placenta, for these reasons: 1. It was much smaller than I ever knew one at 'full period;" 2. I could not find a beginning to membrane, or even origin of the fibers of the placenta; 3. When I succeeded in opening it in its center, I could only bring away what naturally twisted off by the greatest effort, and it was perfectly organized tissue, firm as beef, the vessels appearing more like ordinary blood-vessels, and very contracted; and, 4. It *never* came away, there now being no discharge. I will here state the discharges were never much more than natural, and part of the time none.

"Another point in the patient is: During her fourth confinement the placenta adhered slightly; the fifth more; in the sixth still more, in fact remained two or three days, until we have the seventh case before us. Question: What are the scientific reasons for the gradual increase of adhesions?

"Again, the paralysis in this case was similar to the same trouble she had in her sixth confinement, and occurred the same number of days and—I think—hours after labor. Have you any explanation?

"One thing more and I close. In this lady's sixth confinement the lochia ceased, and all the symptoms of puerperal fever set in; and, after trying every other means, I resorted to the iodide of potash, with bichloride of mercury, and upon the administration of a few doses the flow appeared, and she began to improve immediately. In her last confinement the discharge ceased several times, and it was readily re-established by the same treatment. And I would say, ever since 1871, I have resorted to it in the cessation of the lochia, and always with success; sometimes, however, without the mercury."

IMPROVED TEST FOR DETECTING SUGAR IN URINE.—Dr. W. S. Haines (*Medical Examixer*) recommends the following modification of Fehling's Test Liquid:

"Take of sulphate of copper, thirty grains; of hydrate of potassium (in sticks), one and a half drachms; of *pure* glycerine, two fluid drachms, and of pure water (distilled is best), six fluid ounces. Divide the water into two nearly equal portions; in one of these parts dissolve the sulphate of copper and the glycerine, and in the other portion the hydrate of potassium. Mix the two solutions and stir until any precipitate which may in the first place be formed is entirely re-dissolved. The test liquid thus prepared may now be poured into a bottle and set aside until needed. * *

"When well made the solution should be a perfectly clear, dark blue liquid, free from sediment. * * * * * * * *

"After a quantity of this solution has been prepared, testing for sugar in the urine becomes a matter of the greatest simplicity, and ought not to occasion the physician the slightest trouble. An ordinary sized test tube is to be filled to the depth of half an inch or so with the test liquid, and heat from any convenient source applied until it boils, when no change whatever should ensue. Now, two or three drops of the suspected urine are to be added, the test tube shaken slightly, so as to cause a mixture of the two fluids, and heat once more applied. If sugar is present in any considerable quantity, an abundant precipitate of the yellowish-red sub-oxide of copper (cuprous oxide) will be produced, and this, remaining for a while suspended in the liquid, will make the latter appear almost opaque, by reflected light. If, however, the test solution undergoes no change in thus treating it with two or three drops of the urine under examination, we may be certain that no considerable quantity of sugar is present; but in order to demonstrate its *entire* absence, it will be necessary to continue the addition of the urine until a quantity has been added equal to half the bulk of the test liquid, and then apply heat once more. If any sugar whatever be present it will now show itself by causing a characteristic precipitate of the sub-oxide of copper—it may be, however, only in small quantity. But if, on the contrary, sugar be entirely absent, no change in the test liquid will ensue, except a lightening of the color from the dilution, and the appearance of a white, flocculent deposit

of phosphates floating about in the light, greenish-blue liquid. Care should be taken not to mistake this phosphatic deposit for one of the sub-oxide of copper; the former is white and flocculent, the latter yellowish-red, and shows no disposition to form flocculi."

CASE OF PYRAMIDAL CATARACT, NOT FOLLOWING OPHTHALMIA NEONATORUM.—Dr. S. C. Ayers (*Lancet and Obs.*) reports the following case:

"M. C., aged three, a healthy, well developed child, has pyramidal cataract in both eyes. She has never learned to walk, simply because she could not trust herself alone. She is the eighth child in the family; all the preceding ones are healthy and have sound eyes. From Dr. E. Jennings, Dayton, Ohio, (who referred the case to us for treatment) we have learned that the child never had purulent conjunctivitis, or any inflammation of the eyes sufficient to attract his or the mother's attention. The defect in the child's eyes was not noticed until until several weeks after she was born.

"The eyeballs are full and well developed; the corneæ perfectly clear, and the irides very active; the cones or pyramids which project from the central portion of the lenses seem to come forward almost to the posterior surface of the cornea; the bases of the cones fill the pupil, as it appears at ordinary dilation; around the base of each cone is a narrow ring of opacity in the lense, but beyond this it is perfectly transparent. It was presumable that the fundus was sound, from the fact that the child did not roll her eyes around as if she was blind, but had tolerably good control of them. Discission was contra-indicated, because so much of the lense was transparent. Iridectomy was indicated, first, because it was safest; and second, because if the lense should ultimately become opaque it would not interfere with a subsequent discission or extraction.

"Dr. Williams accordingly operated on both eyes, making an iridectomy inwards. Very little irritation followed the operation, and in a short time the patient returned home.

"The remarkable improvement in her vision was evinced by the fact that she soon learned to walk after the operation.

"In this case there is satisfactory evidence that the child never had purulent ophthalmia, nor any other inflammation of the eyes sufficiently severe to attract the attention of the mother. We are compelled, then, to abandon the theory of lymph deposit, and also that of the disturbance of the untrition of the lens capsule from proximity of inflammatory action. Are we not, then, forced to fall back upon the supposition that the development of these pyramidal cataracts was congenital?"

QUININE AS A CARDIAC SEDATIVE IN ARRESTING INTERNAL HÆMORRHAGE.—Dr. S. Caro (*New York Medical Record*, June 1, 1874,) gives several examples in which, after all other remedies had failed, hæmoptysis, broncorrhea, epistaxis and menorrhagia were relieved by the use of quinine. To explain these results we make the following extracts: A solution of quinine—eight grains—was injected under the skin of the hind leg of a small dog. The temperature soon fell four degrees. The chest being opened the heart was found relaxed, the cardiac impulse weakened and the blood less rapid and voluminous. The arteries were seen to diminish in size, and the capillaries seemed empty or atrophied. In a second dog of the same size fifteen grains were injected. The temperature was lowered eight degrees, and the animal soon died from paralysis of the heart. The chest being opened, the heart was found completely relaxed, as soft as a rag, with scarcely any blood in the left ventricle. Into a third dog three grains were injected. The temperature rose one degree, and the pulse became more frequent. On opening the chest the heart was found tense and beating rapidly. Before the use of the quinine the blood corpuscles were found thin and running about; after the injection of the quinine the corpuscles were shrunken in various irregular shapes, indented or jagged at the edges, and very much altered in shape. A large number of observers believe that quinine acts upon the inter-cardiac nerves, producing an irritation of the peripheric extremity of the valves, paralyzing the peripheric extremity of the motor nerves of the heart, and the motor muscular system of the same, decreasing its activity and producing diminution of the blood pressure and peripheral heat. Cohnheim says that quinine has the power of arresting the motion of the white blood corpuscles, preventing the formation of animal heat and reducing blood pressure.

Binz thinks that quinine in high doses paralyzes the action of the heart and arrests the motion of the white blood corpuscles by diminishing the oxidizing power of the red corpuscles, and in small doses acts like a tonic by increasing cardiac action. Traube says that the relaxed condition of the heart is produced by the stimulating action of the quinine upon the vagus.—*Detroit Review.*

QUINIA—ITS THERAPÆUTICAL ACTION.—We take from the *London Lancet* the following abstract of some lectures by M. Sée on the therapeutical action of quinia:

In health, quinia has a threefold action: First, It diminishes the frequency and force of the heart's action; second, it lowers the tension in the arterial system; and, third, it lowers the temperature, or prevents its elevation by exercise. Its action on amæboid movements of white blood corpuscles is also recognized. Respecting the teachings of experience in the use of quinia in the varied forms of malarial fevers, he shows that the drug cannot be re-

garded as a specific, for it does not prevent the malarial poisoning when taken as a prophylactic; it does not prevent recurrence after a variable period, and it is useless in some of the most fatal forms, especially when the fever tends to assume a continued type.

Further, quinia has an equally beneficial effect in other fevers—periodic in character and beginning with a chill—as urethral fever from catheterism. In ague, he thinks that the effect of quinia is due to its three-fold action, exerted chiefly during the period of rigor; upon the heart it diminishes its frequency and force; on the peripheral arteries it lowers their tension and produces dilatation; on the spinal cord and vaso-motor centers, acting as a sedative, it tends to diminish their excitability; and lastly, it exerts a direct cooling action on the system generally.

In acute rheumatism M. Sée highly recommends quinia, and sees in its physiological action the most precise indications for its use. —*Ibid.*

Displacement of the Spleen.—Dr. Pirotais (*Arch. Med. Belges and Med. Centr. Zeitung*, No. 86,) reports the following case:

"A lady, thirty-five years old, who had always been healthy, was injured by a fall from a wagon, which produced great pain in the left hypochondriac region, vomiting, and inability to move. The attending physician found a tumor at the site of pain, to which he applied leeches and friction, with mercurial ointment, but the pain and vomiting continued.

"The writer was called in to see her about six weeks after the accident occurred. On examination he found a somewhat movable, circumscribed tumor, in the left iliac region, six inches in length and three and a half inches in breadth. Pulse 80; temperature normal. He diagnosed the tumor to be the spleen, and returned it to the left hypochondriac region, retaining it there by a compress and a firm binder. After the reduction the pain and vomiting subsided. A few days later the patient was able to retain food and to leave her bed, to which she had been confined ever since the accident."—*Clinic.*

Periosteal Flaps in Amputations.—Tozzoni believes that the results of numerous operations on animals and occasional examinations of the stumps of patients, justify him in making the following statements as the the advantage of periosteal flaps:

1. The operation is easily performed. At the present day, when pain and blood is spared the patient, it is a matter of small consequence if a little more time is consumed than usual. 2. The periosteal flaps retract considerably, but equally and without wrinkles. 3. These flaps will remain spread over the cut surface of the bone. 4. In twenty-four hours there will be a firm adhesion between the medulla and the flaps. Later, they consolidate with the bone. This early adhesion is of the greatest practical significance; it protects the medulla from the influence of the pus that may possibly form about the end of the bone.—*Riv. Clin. d. Bologna, Allg. Med. Central Zeit.*, 74, 1874.—*Med. Examiner.*

Induction of Premature Labors.—Dr. Jas. B. Swayne (*British Medical Journal*, Aug. 8, 1874,) reports twenty cases of induced premature labor. The instruments used were sponge tents and Barnes' dilators. The time occupied by the artificially induced labor varied from six hours to sixteen days. Out of twenty cases three mothers died. Two of these were in so desperate a condition that without the operation speedy death was inevitable. In only one could death be clearly the result of the operation. Eleven out of twenty infants were stillborn. Of those born alive two died. This great mortality is due to the frequent malposition of the child. On the whole, the doctor's experience does not prove the operation more favorably to the mothers than the only other alternative, craniotomy. The saving of infant life is a great gain. Still, the responsibility is so great that it should be shared with another practitioner.—*Ibid.*

On the Employment of Tepid Baths in Diseases of the Chest, especially in Pulmonary Phthisis.—It is an opinion generally held by the public, and even by physicians, that baths are injurious to patients suffering from any pulmonary complaint, and it is considered heroic treatment in hospital, and, above all, in private practice, to prescribe a bath to a patient who coughh, even when its administration is indicated for the relief of other complaints, as, for instance, urethral stricture, etc. Tepid and hot baths are recommended in a large number of diseases; and all authors, who have observed their action on man in health, agree in extolling their excellent effects. Regarding the judiciousness of their employment in diseases of the chest there is also no question, though hitherto but few scientific observations have been made which would favor this view of their efficacy. Dr. Sonplet, at La Pitié, in the service of Prof. Lasèque, has instituted a series of experiments, the results of which permit him to conclude that, by discarding the employment of tepid baths in thoracic maladies, we deprive ourselves of an important and incontestable aid in the treatment. The author bases his conclusions on two hundred observations, most of the baths having been administered to consumptives. In administhring a bath, its temperature is the most important point, the occasional addition of a small quantity of sulphuret of pottassium, alkaline carbonates, etc., being only secondary; thermometric indica-

tions do not always correspond to the sensations of heat and cold, and the physiological and pathological condition of the subjects must be taken into account, and also their individual impressibility. A *tepid* bath is one the temperature of which is about three degrees below that of the body; the temperature determines that of the bath; from time to time more water is added, to allow of no variation. The duration of a bath, varies from twenty to forty-five minutes; the patient is allowed to remain in it until he feels fatigued, or chilled even in warm water. There is no indication to discontinue the bath provided the patient feels comfortable in it, but the desire to remain is rarely prolonged beyond forty-five minutes, even in summer. On account of the increased appetite which is felt after a bath, the hour which precedes the morning or evening repast is the one which agrees best with patients. Usually, one bath is given every two days. A powerful influence is immediately exerted on the sweats, of which the patients complain so much; the baths are, however, increased to one bath every day when the effect is not sufficiently notable from the very beginning of the treatment; rarely do the sweats resist the third or fourth bath. Afterward, two or three baths a week suffice to check them, and to bring about a marked amelioration, especially in cases of less advanced and less extensive tuberculous disease. This treatment is only accessory, the general treatment being continued, though no anti-sudorifics have been given in the above cases. During the first two or three baths, the patients generally feel a slight oppression and acceleration of the respiratory movements, lasting from two to five minutes, which disappears in the third or fourth bath. In patients who have continuous cough, this disappears, and the expectoration becomes more copious; the pulse diminishes in frequency, and the temperature falls. On leaving the bath, the patient feels comfortable, respires more easily, the appetite is increased, the skin has more tone, the pulse is diminished in frequency; the author has seen it reduced twelve, twenty, and twenty-eight pulsations per minute; the temperature is sometimes reduced two degrees. In cases of acute phthisis, this amelioration does not last more than three or four hours; but during that time the patients are materially alleviated. In consumptives the skin is in an habitual state of moisture, which softens it, and makes it pale and inelastic; in a word, it loses its vitality and a portion of its respiratory faculties. The bath tonifies it, restores its capillary circulation, cleanses it, and removes everything which embarrasses it in the performance of its functions. Pulmonary respiration being very incomplete, the complementary respiration by the skin plays an important *rôle* in hæmatosis, in facilitating the exchange of gases. In many cases associated with diarrhœa this has been amended by the use of baths; the presence of this complication is, therefore, no contra-indication to their employment. Contrary to the opinion of Fröhlich, that the temperature of the bath should be in inverse ratio to that of the subject, the author believes with Ziemssen that a temperate bath continued thirty or forty minutes produces a more prolonged abatement of febrile heat than a cold bath of ten minutes.—*Arch. Gén. de Méd. Rev. Thérapeut.—New York Medical Journal.*

History of Cholera Summed Up,—Dr. Ely McClellan (*American Practitioner*) sums up the mass of evidence, collected by a large number of observers, in the following propositions:

1. Cholera is a contagious disease, resulting from an organic matter which, entering into the alimentary canal, acts upon and destroys the epithelium.

2. The respiratory and digestive organs are the avenues by which individual infection is accomplished.

3. The active agents in the distribution of the cholera poison are the dejections of persons who have become infected, or of those in whom the disease is fully developed. In these dejections there exists an organic matter which in a certain state is capable of reproducing the disease.

4. Cholera dejecta, coming in contact with and drying upon any object, such as articles of furniture, bedding or clothing, will retain indefinitely its power, and under favorable circumstances the process of decomposition will at once commence.

5. Through the atmosphere of infected localities, the disease is frequently communicated to individuals.

6. Water, contaminated by surface-washings, by drainage from neglected sewers, cesspools or privies, may and does become contaminated with the cholera poison.

7. Without a combination of all the well-known factors of cholera, the disease cannot originate *de novo*.—*Detroit Review.*

Correspondence.

THE CHAMPION REVIEWER EXPLAINS.

It is too frequently the reviewer's duty to expose ignorance, pretension and vanity — faults common in every age, but perhaps never so offensive as at the present time. If the critic be merciful, and indicate these faults with gentleness, he should receive the author's thanks; if the author's vanity be of that overpowering kind which allows him to see nothing

but ignorance or dishonesty in criticism which errs only on the side of charity, then may the reviewer expect a storm of invective, remarkable for its scurrility, full of sound and fury, enlightened by very little logic and less sense. We apply these remarks to Dr. C. H. Hughes' letter in the RECORD for December.

Dr. Hughes read a paper entitled "Psychical or Physical," before the Association of Medical Superintendents of American Hospitals for the Insane, at the annual meeting in May last. A copy was placed in our hands for review. In the October number of the RECORD appeared a half page of comment — much greater space than the paper merited. Dr. Hughes, feeling angry, we judge, from the tenor of his two page letter, tries to reply to the critique. He charges us specifically with "untruth," "dishonesty" and "ignorance." We purpose to show that Dr. Hughes has not only misrepresented us (not to use a more offensive term), but that he is guilty of each and every one of the "high crimes and misdemeanors" with which he has charged his reviewer, and that he is also guilty of the most barefaced plagiarism, as well as of garbling his quotations so as to totally misrepresent the author quoted, where he does deign to give credit.

Since writing our notice of "Psychical or Physical," we have received the October number of the "Americal Journal of Insanity," containing the official report of the proceedings of the Association of Superintendents. We will quote the remarks of some of the eminent gentlemen present when Dr. Hughes presumed to air his borrowed plumage in the presence of those whose astonishment at the presumption displayed could have been equalled only by their pity for the ignorance of the would-be savan.

If "Psychical or Physical" means anything; if that paper contains anything other than what we gave it credit for containing — i. e., "The question discussed in this brochure is this: Are the operations of the human mind due simply and solely to physical changes, or are they the manifestations of the presence of an immaterial entity, the soul?" If there is any other meaning in the paper it remained undiscovered by the eminent gentlemen who were edified (*sic*) by hearing the author read it, as witness their remarks:

Dr. Stevens—"I do not propose to discuss the paper at all. I believe I understand the views as presented by my friend Dr. Hughes, and I think they are in accordance with the popular sentiment of the day; that is, that behind all matter, outside of all matter there is an immaterial something, called mind."

Dr. Hughes did not correct his friend Dr. Stevens, as he should have done if Dr. Stevens had presented his views improperly, "ignorantly or dishonestly," as he accuses us of doing when we used nearly the same words in interpreting Dr. Hughes' meaning.

The President—* * * * * "I see no difficulty myself, in regarding mind as the result of the disintegration of matter, as a brain force, if you consider it as material merely, and not as the immaterial and immortal part of us which must survive forever."

It would therefore appear that even the President of the Association of Superintendents of that august body which Dr. Hughes recognizes as the exponent of American Psychology, was so "ignorant or dishonest," in the opinion of Dr. Hughes, as to regard "Psychical or Physical" in a similar manner to Dr. Stevens and W. B. H.!

Dr. Compton, of Mississippi, appears to have apprehended the true meaning of that unfortunate paper. We will quote once more from the official report:

Dr. Compton—"I am sure that some of us might engage in its perusal with profit. In the absence of a sermon, it would make admirable Sunday reading."

As "Sunday reading," it is a success; for there was never a more "stale, flat and unprofitable" jumble of quotations, assertions, and platitudes brought together for the edification of simple minds than this same psychical (!) effusion.

The temerity of the compiler is all the more astonishing, in view of the fact that the members of the Association might be supposed to have some knowledge of the matters discussed. But the rashness of ignorance would be amusing, if it were not pitiable.

"No theories whatever are advanced in the paper."—(Dec. RECORD.) Compare this emphatic assertion with "Psychical or Physical." "The thought molecule, if it ever be found, will be discovered to be more subtile and infinitesimal in its organization, than any nerve-cell yet revealed to us by microscopic vision." Again: "The conjecture is as plausible as the undulation, or the emenation theory of light, or the undulation theory of sound," etc. This is the theory and all the "well-known facts," with which his "observation" is supported. In other words, his supposititious thought-molecule is conjectured to be very subtile and infinitesimal, and this conjecture (it isn't a *theory*, he says,) is asserted to be plausible. He is evidently ignorant of the demonstration of the undulatory theory of light and sound.

"Atomic changes accompany, precede and follow the rational and irrational manifestations of mind." — (Psychical or Physical, and December RECORD.) The context is, like its compiler, immaterial. It *is* a "well-known fact" that mental work is accompanied by waste of nerve-tissue; or, we should say, we find the products of nerve disintegration in the excreta after mental exertion. But where are the "well-known facts" to prove Dr. Hughes' assertion that there is a probability of some day demonstrating that these changes precede

and follow nervous action? Here is another theory which he neglects to support with facts.

The ganglionic cells of the gray matter of the convolutions of the cerebral hemispheres are equal to the task of thinking in ordinary brains. Dr. Hughes, not being satisfied, we suppose, with his, would introduce supposititious (he has it right to a T now, we hope,) "thought-molecules" into his otherwise not overweighted encephalon. If he *could*, say by means of a suppository, obtain possession of some gastric cells of some sort, which would enable his digestive organs to supply his brain cells (those with which nature furnished him,) with healthy blood, his mind might, perhaps, evolve healthy thought; he might assimilate the ideas of other men so that they might put on at least a semblance of originality, when he presumed to write for men who know something of psychology. We wish, for the good of Dr. Hughes, that science would discover some such process for his benefit. But alas! we fear science will not advance to that extent until it is too late for Dr. Hughes; an anxious world will wait in vain for anything practical, original or novel from his ever-moving pen; it will always remain — if we may hazard a guess — the outlet for an undigested, crapulous, flow of quotations from Locke, Maudsley, Spencer, Gooch, Ray, Kirkbride and Gray, interspersed with a few, at second-hand, from Esquirol, Descartes, Mauriceau, Velpeau and Mme. La Chapelle. With this gloomy prognosis, and one more citation from "Psychical or Physical," we will conclude our already too extended notice.

"We may conclude the supposition"—that ideas are accompanied by correlative changes in nerve-cells—"to be a universally admitted fact, established by adequate and indubitable proof, and still mind remains unobserved, unfit, unprobed by any of the implements of science," etc. We ask for information, merely, for we confess *our* ignorance in this matter—we ask what is to be understood by "*unfit*," in the above connection? Did he mean that there had been a battle in which mind was put *hors de combat*, or was "*unfought*," as the Arkansas Traveler would observe?

The idea of an "implement of science" observing and probing mind or anything else, is worthy of the author of "Psychical or Physical;" it is in this and similar sentences, that there is "too much psychical and too little physical" to be understood by ordinary minds; at least, those having normal digestion and "capacious" gastric apparatus to reinforce them. But we suspect that Dr. Hughes has here, again, indulged in that pleasant variety of metaphor denominated rigmarole!

A reference to the second chapter of Maudsley's "Physiology and Pathology of the Mind" will convince any one that Dr. Hughes *has* attempted to controvert Maudsley; also, see "Body and Mind," by the same author. Pages are transcribed almost verbatim; sometimes credit is given, sometimes not. When credit is given, words are sometimes omitted; sometimes one or two words are interpolated, changing the author's meaning.

But time and space would fail to point out the peculiarities of this strange combination of literary piracy and egotistic ignorance.

It has been our painful duty to thus expose this would-be exponent of trans-Mississippi psychology. We sadly take a final (we hope) leave of "Psychical or Physical," promising, in future, to make a more free and incisive use of the critical scalpel upon such specimens of crudeness, ignorance and pretension as may come under our notice.

W. B. H.

DEAR RECORD:

Recently, we were succeeded in the medical care of a patient by a homœopathic practitioner, and as during our attendance we had found it necessary to resort to the use of quinine in the case, our successor took occasion to abuse us most roundly for our temerity in the employment of such a pernicious and poisonous drug. It is a matter of common fact, which can be verified by consulting any druggist's files, that our infinitesimal physicians make large use of quinine concealed in the form of sugar-coated pills, and that their virtuous indignation at our use of the remedy is merely in the interest of business. It is very rarely, however, that they will admit the indispensableness of the drug, and their frequent recourse to it—at any rate, never to the people. I would, therefore, direct your attention to the following eulogy upon quinine, by Dr. C. J. Hempel, American editor of Bæhr's Science(?) of Therapeutics, a standard Homœopathic text-book, which will be found in a note to the chapter upon "Neuralgia Trigemini," p. 233:

"In prosopalgia caused by malarious influences, or occurring with the regularity or in the place of a fever and ague paroxysm, we have scarcely ever been able to get along without quinine. Say what you please against quinine, it is one of the most indispensable antidotes to the intermittent type of paroxysms resulting from the influences of malaria. We have so often and so satisfactorily cured intermittent prosopalgia with five or ten grains of quinine, administered in grain doses every two hours during the apyrexia, that we can recommend its use to homœopathic physicians with all the earnestness of one whose knowledge is based upon the most unimpeachable experience, and we advise our friends not to mind the absurd twaddle of a few antiquated ignoramuses, who would confine Homœopathy to the narrow horizon of their own childish folly."

QUINIA.

ST. LOUIS, Dec. 20, '74.

Missouri Clinical Record.

W. A. HARDAWAY, M. D., ALEX. B. SHAW, M. D., } Editors.

St. Louis, Mo., - - January, 1875.

Reports of the Proceedings of Societies, Correspondence, Notes and Medical Items are solicited from all parts of the country.

Subscribers are likewise requested to call our attention to notices of marriages and deaths of physicians, and to all other matters of interest to the profession.

A short-hand reporter is regularly engaged upon the RECORD.

We are not responsible for the views of correspondents.

H. F. ZIDER, Publisher,
511 *Pine Street, St. Louis, Mo.*

Editorial.

HOMŒOPATHY IN OUR HOSPITALS.

The Homœopathists of this city are making the most strenuous efforts in their endeavor to obtain equal privileges with the regular profession in the medical conduct of the city hospitals. However repugnant this so-called system of medicine is to the scientific physician, and however conscious we are that, in many instances, it is merely assumed from selfish motives by men totally disbelieving its tenets; still, as a matter of abstract right, we are not prepared to say that their claims in this particular are without foundation. They contend that a large proportion of the taxes accruing to the support of our eleemosynary institutions, come from the purses of the patrons and supporters of Hahnemannism. They urge further that such being the case it is but common justice that they should be accorded a fair representation on the one hand, and that, on the other, those seeking relief should be allowed to use their own discretion in the selection of medical attendance.

It strikes us that no policy is more pernicious than that of intolerance, however just that intolerance may be, nor is there any course more certain to materially benefit that which we most heartily desire to repress. We freely acknowledge that to the conscientious, educated physician, there is nothing more disgusting than the blatant charlatanry of the ignorant practitioners, or the deplorable imbecility of the enthusiastic dupes who compose the ranks of homœopathy, and that the bare thought of allowing such men license to practice in our public charities is in itself intolerable: yet it has been said that the blood of the martyrs is the seed of the church, and for years we have been manufacturing sympathy and support for them in this way. What is the threadbare trick that is generally performed when a man, for gain's sake, forsakes the flag of honorable medicine and assumes the pretensions of the quack? Why, simply this: If he is a member of a medical society he takes good care that charges are brought against him, and that he is expelled; he then writes and circulates a "defense" of his action, compares himself to Galileo and a long line of martyrs for the truth's sake, advertises himself widely, gains sympathy, friends and patronage. An exact analogy can be instituted between these individual cases, and our past treatment of the question as a whole. Let us, for the sake of our cause, consult policy and experience in these matters, and give the homœopaths the things they covet. What will be the consequence? Once admit the homœopaths, and in a short time every other "*ism*" and "*pathy*" under the sun will claim the same privileges, and as justly, too, and it will not be long before the people will judge of these things in their true light, and common sense will prove a most benificent handmaid of science.

Let our Boards of Health admit to practice in our hospitals the Eclectics, Homœopaths, and others who may desire it; but let it, at the same time, be required by law that there be kept the strictest accounts of the diagnoses, treatment and all other matters appertaining to the patients under their care. By pursuing this course we will put a stop to the supply of ever-ready martyrs, and demonstrate beyond peradventure the superiority of rational medicine.

H.

THE *Eclectic Journal*, referred to in our last number, comes to hand just as we are going to press. We take the opportunity of congratulating its editors upon the possession of an Anthon's Latin Dictionary, as it has evidently enabled them to appreciate our reply more clearly. As an illustration of what they term some of our "bad spells," they make mention of our spelling of "ekzema." If they will take the trouble to look it up, they will discover that Wilson and other dermatologists prefer the Greek orthography of the word.

Book Notices and Reviews.

CLINICAL LECTURES ON DISEASES OF THE URINARY ORGANS. Delivered at University College Hospital. By Sir Henry Thompson, Surgeon Extraordinary to His Majesty the King of the Belgians, Professor of Clinical Surgery in University College Hospital, etc. Second American from the third and revised English edition, with illustrations. Philadelphia: Henry C. Lea, 1874. For sale by the St. Louis Book & News Co.

The present edition of this work of Sir Henry Thompson contains the course delivered by him at University College Hospital, and comprises the most recent alterations, as well as two lectures not in the previous editions; these lectures contain in a short compass, well and elegantly told, all that is knowable in the present state of science in reference to diseases of the urinary organs.

The lecturer has not thought it unbecoming to deal with practical points in a practical way, and hence, we find scattered throughout the volume just such details of knowledge, which will prove most useful at the bedside. As an illustration of this fact, we will quote the following remarks upon the examination of the urine: "Whenever you want a specimen from your patient to examiue, do not tell him to send you a bottle of it passed in the usual way, or you will get a mixture of often doubtful value. What you want is the secretion of the kidneys, plus only anything there may be in the bladder; you do not want it complicated with anything which may come from the urethra. Let the man pass two or three tablespoonsfull through the urethra first, so as to sweep out whatever may be there, which may be thrown away, or be put in a separate bottle, after which you will get a pure specimen—at any rate one of which you will know the source. You will have the renal secretions plus anything in the bladder. Suppose the man has gleet, or chronic prostatitis; there will then be a quantity of muco-purulent matter in the urethra. If all this be carried into one vessel with the urine, how will you determine the different products, and decide, by the eye or by the microscope, what has come from the urethra, what from the prostate, and from the kidneys? You can not do it; but if you get rid of the source of error by flushing, the urethra, so to speak, and emptying the contents in a separate glass—say a wineglass—then taking the bulk or remainder in a tumbler, you will generally have a sample of urine that you can do something with." This work is so well and favorably known that it is unnecessary to speak further of its merits, but we will say in conclusion that both specialists and general practitioners alike would profit by its perusal.

A GUIDE TO THE PRACTICAL EXAMINATION OF URINE. For the use of physicians and students. By James Tyson, M. D., Hospital Lecturer on Pathological Anatomy, University of Pennsylvania, etc., etc., with a plate and numerous illustrations. Philadelphia, Lindsay & Blakiston, 1875. For sale by Gray, Baker & Co., St. Louis.

There are already quite a number of comprehensive works of great value, and a smaller number of manuals or guides for the examination of the urine, but the former are too bulky for convenient daily use and the latter are generally too limited in details. This work, however, of Dr. Tyson takes rank intermediate with the classes above mentioned, and is, we think, well named "Practical Examination of Urine."

It consists of 182 pages. The first 33 are occupied with a description of the reagents and apparatus required for qualitative and approximate analysis, and the general physical and chemical characters of the urine. The succeeding 73 pages are devoted to the study of the inorganic and organic constituents of the urine in health and disease. Then 58 pages are given to the consideration of the various urinary deposits, and the book closes with a chapter on the deferential diagnosis of renal disease and tables for reducing the metric or French system into the English, and vice versa, as far as required in urinary analysis.

To quote from the author's preface: "Pains have been taken to secure a completeness of illustration not usual in the smaller works, while the methods for most exact quantitative as well as approximate analysis have been included without too much increasing the size of the volume,

The modes of approximate estimation so commonly used in the German laboratories, it is believed, are here published for the first time in English." * * * * * *

THE PHYSICIAN'S HAND BOOK. By Drs. William and Albert Elmer, for 1875, For sale by Gray, Baker & Co., St. Louis.

The HAND BOOK appears in two separate editions, one containing and the other omitting the classification of diseases, materia medica, art of writing prescriptions, etc., thus accommodating physicians who desire the diary or record of practice separate from the printed matter.

We note with pleasure the addition of a cash table, enlargement of the obstetrical record, and the mention of a large number of new remedies.

We have used this excellent work for years, and can confidently recommend it to all practitioners as one eminently adapted to the end for which it is designed.

CROUP IN ITS RELATIONS TO TRACHEOTOMY. By J. Solis Cohen, M. D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest in Jefferson Medical College. Philadelphia: Lindsay & Blakiston, 1874.

This work contains un analysis of five thousand cases of tracheotomy. Dr. Cohen has treated the subject in a most exhaustive manner, and deserves credit for the immense industry displayed in the collection and analysis of the cases.

BOOKS AND PAMPHLETS RECEIVED.

THE *Obstetrical Journal* of Great Britain and Ireland, with American supplement.

ADDRESS delivered bufore the McDowell Medical Society of Kentucky, at its semi-annual meeting in Madisonville, Ky., November 4, 1874, by Wm. T. Briggs, M. D.

CASE OF HYSTERIA, NEURASTHENIA, SPINAL IRRITATION, AND ALLIED AFFECTIONS; with remarks. By Geo. M. Beard, M. D., New York. From Chicago *Journal of Nervous and Mental Diseases.*

THE TREATMENT OF MARASMUS, WHOOPING-COUGH, AND DEBILITY IN CHILDREN BY ELECTRICITY. By George M. Beard, M. D., New York city. Reprinted from Detroit *Review of Medicine and Pharmacy*, October, 1874.

Archives of Electrology and Neurology, a journal of electro-therapeutics and nervous diseases, edited by George M. Beard, A. M., M. D., November, 1874. We congratulate the editor on the value, fine appearance, etc., of No. 2.

LINDSAY & BLAKISTON'S Physicians' Visiting List for 1875. (For sale by Gray, Baker & Co.) We are under obligations for this ever acceptable and valuable little book. There are various editions of the Visiting List, intended to accommodate physicians with larger or smaller practices; in fact, it is an indispensable vade macum to the practitioner.

Miscellaneous Notes.

THE practice of vivisection is meeting with determined opposition in England.

ALPHONSE DE CANDOLLE, of Geneva, has been elected one of the eight foreign associates of the Academy of Sciences in Paris, in place of the late M. Agassiz.

MESSRS. A. M. LESLIE & Co. have purchased the *Missouri Dental Journal.*

INJECTIONS OF COD-LINER OIL FOR ASCARIDES.—The *Jouanal des Connaissances Medicales* publishes a communication from Dr. Szerleki, of Mulhouse, on a case of irritation of the anus and adjoining parts, which was very greatly relieved by injecting an ounce of cod-liver oil into the rectum.—*The Obstrt. Jour.—Med. Examiner.*

A POCKET MANUAL for students styled, Epitome of Percussion and Auscultation, Physical diagnosis of affections of the lungs and heart, with chemical examination of the urine, etc., etc., by Alex. B. Shaw, M. D., now in press, will be for sale by the St. Louis Book & News Co., Gray, Baker & Co., and F. Roeslein by the 15th inst. It consists of thirty-two 16 mo. pages bound in cloth. Price 50 cents.

PROF. ESMARCH recently attended a meeting of the Clinical Society of London, and gave a very interesting account of his method of controlling hæmorrhage, together with some reports of cases in which he had seen gratifying success attend its uses. Out of three hundred cases in which the method has been employed by him, no evil result has followed in any one. His cases had done better, he said, than those treated antiseptically, and with the ordinary means of controlling hæmorrhage.—*Med. Examiner.*

NEW SIGN OF DEATH.—Dr. Monteverdi, of Cremona, recommends what he calls an "easy, prompt, and certain" method of demonstrating the reality of death in man. It consists in the observation of a spot produced by the injection of a drop or two of ammonia beneath the skin. If the man be living, the spot produced by such injection is always of a more or less vinous red, whilst, if he be dead, the color is scarcely different from that of the skin itself, or, at least, has no purple tint. The solution of ammonia injected should have a strong odor of the gas, and a specific gravity of 0.92. If the individual be living, no bad effects are produced, beyond a burning pain which lasts for a short time, and the reddish tint appears almost immediately. The spot appears to be due to the action of the ammonia on the blood.—*Medical and Surgical Reporter.*

EFFECT OF LARGE DOSES OF IODIDE OF POTASSIUM IN SYPHILIS.—A woman eighteen months ago had hard chancre; nine months later an eruption appeared. She received no medical treatment.

Three months ago, fifteen after the initial lesion, she entered hospital. The palate was completely destroyed from syphilitic ulcera-

tion. Scattered over the body was a pustular syphilide. Treatment was commenced with sixty-grain doses of the iodide of potassium three times a day, and kept up for four months, with only slight improvement. At the end of that time the iodide was increased to one hundred and twenty grains three times a day and continued for a month. One week after the increased dose of the remedy there was a decided change for the better, and at the end of that month the patient was so far improved as to leave the hospital.

After a short stay she reëntered, with a marked change for the worse. Sixty grains three times a day was again tried, but failed as before. The dose was again increased, and in a short time she was very much improved. She is still taking the large doses of iodide.

We do not think that large doses of the iodide of potassium will always yield the satisfactory results recorded in the above case, although it has the high sanction of Dr. Van Buren. Some years ago we had under observation a hospital patient who not only obtained no benefit from mercurial or the mixed treatment, but showed a tendency to get worse. He was at that time taking the biniodide of mercury, with iodide of potassium in medium doses. The dose of the iodide of potassium was increased to maximum, and in a very short time the patient was salivated profusely, and had, as a sequel, necrosis. The only possible manner in which this could have occurred was that the iodide rendered the mercury remaining in the system active, and produced the same effect as if it had been recently administered. Notwitnstanding the salivation and increased doses of the iodide, there was no improvement in the general symptoms, and the patient left Bellevue to enter a private hospital. We saw him some years after, and received the grateful information that he had been cured after a few weeks by some herb tea.—*New York Med. Journal.*

Cold-Powder.—We have long been in the habit of using what we call a *cold-powder*, which we have found of great value in breaking up colds when taken in time, and in modifying their force when taken late.

The prescription is rs follows:

Camphor, five parts. Dissolve in ether to the consistence of cream. Then add carbonate of ammonia, four parts; opium-powder, one part.

Mix and keep in a tightly-corked bottle. The dose is of course regulated by the opium, and ranges between three and ten or fifteen grains. We have been accustomed to prescribe it for our friends by the finger-nail full, or as much as one can put on the finger-nail.

This powder may be taken in a little water just before retiring, by preference, or at any hour of the day, whenever there is a suspicion of having caught cold. If need be, a moderate dose may be taken several days in succession.

The advantages of this powder are very great.

1. The taste is agreeable, or at least is not disagreeable. Even the bitterness of the opium is mostly neutralized by the camphor and ammonia. No child objects to this powder.

2. It is singularly and inexplicably efficacious. We believe it to be more efficient than Dover's powder, and incomparably more agreeable. In some cases it produces a gentle perspiration; in others, this special effect is not observed. It is so easy to take, and so harmless in small doses, that it is well and safe to take it whenever we become badly chilled.

We first called attention to this *cold-powder* in "Our Home Physician," the first edition of which appeared in 1869. From various sources, lay and medical, we hear that it accomplishes all that is here claimed, and we therefore earnestly recommend it to the profession.

Quite a large proportion of nervous diseases, as locomotor ataxia, spinal congestion, neuralgia, progressive muscular atrophy, and so forth, are excited or aggravated by taking cold, anything, therefore, that will lay the axe at the root of the tree and remove the cause of those diseases, is worthy of our study.—*Archives Electrology and Neurology*, Nov. '74.

Scarlatinal Waves.—The *British Medical Journal* of October 17, 1874, in an editorial on this subject, states that the scarlatinal wave for a year is nearly always at its lowest point in spring, and at its highest late in autumn, usually in the months of April and November. This may be called the annual wave, and varies but little in its course, whether the disease be epidemic or not. An examination of the deaths in the metropolis (London), recorded during thirty-two years, shows that the *lowest* point in each year was reached, on fifteen occasions, between the tenth and fifteenth weeks, and in nine others between the fifteenth and twentieth weeks; that the *highest* point in each year was reached, on sixteen occasions, between the fortieth and forty-fifth weeks, and on thirteen between the forty-fifth and fiftieth weeks. The total mortality in the thirty-two years, during the five weeks which are included between the beginning of the eleventh and the end of the fifteenth week, amounted to 5,204 deaths, whilst during five weeks which are included between the beginning of the fortieth and the end of the forty-fourth week in the same year, the deaths amounted to no less than 12,172.

Another wave, which may be called the *periodic*, may be represented by a line connecting together the mortality from the disease in each

year, and indicates the years in which it is epidemic or non-epidemic. An examination of the mortality of each of the thirty-four years ending Dec. 31, 1873, shows that the disease was epidemic in 1840, 1844, 1848, 1852, 1854, 1858–59, 1862–64, and 1868–70; whilst the smallest mortality occurred in 1841, 1846, 1851, 1857, 1861, 1867, and 1873. It is, therefore, evident that the curve of the descending is much more gradual than that of the ascending wave, as the epidemic takes a longer time to subside than to rise again. The almost uniform recurrence of the disease as an epidemic, after three years of comparatively small mortality, is very noticeable in the figures just quoted.

What are the causes of this periodical increase in the height of the scarlatinal wave? Does it arise from seasonal influences, or othsr causes at present unknown? To this we can only reply, at present, that the careful comparisons made by Dr. Tripe in 1848, and by Dr. Richardson some years afterward, show that a temperature below 44-6° Fahr. corresponds with the spread of scarlet fever, whilst a temperature above that point is coincident with an increase in the mortality; also, that the greatest mortality in the year occurs when the temperature ranges between 49-46° and 56-9°, but that the movement in the mortality does not occur in the same ratio with the increase in the temperature. This latter conclusion might have been expected from the comparative regularity with which the disease assumes an epidemic form every four years, whilst there are not, so far as we know, any corresponding sequences in any of the atmospheric phenomena. There is one important consideration respecting scarlatina, as well as small-pox and other eruptive diseases which occur ordinarily only once in a person's life, whish must not be forgotten, viz., that in the interval between one epidemic and another a number of children are born who are susceptible to the disease from not having had it, and the epidemic may chiefly take its origin by the disease occurring in localities where there are many children unprotected, and thus spread rapidly to persons in the immediate vicinity. This can hardly explain its periodicity, although it accounts for the greater numbea of cases when the outbreak occurs.—*Boston Med. and Surg. Journal.*

Home News.

Dr. P. V. Schenck has been appointed Health Officer.

Small-pox and scarlet fever have prevailed quite extensively during the last month.

District vaccination hauing proved a failure, the practice has been discontinued by the Board of Health.

Mortality Statistics for 1874.—Dr. O'Brien submitted to the Board of Health the following report of the mortality of this city for the year 1874:

White males 3,546, colored males 167, white females 2,646, colored females 314; total white 6,194, total colored 314. Grand total 6,506. Of these, death occurred under five years of age in 3,483 cases.

The principal causes of death were as follows:

Apoplexy, 61; congestion of the brain, 196; bronchitis, 51; cancer, 155; consumption, 581; convulsions, 402; croup, 53; cholera infantum, 460; debility, 145; diarrhœa 130; dysentery, 107; typhoid fever, 117; scarlet fever, 91; marasmus, 299; meningitis, 207; cerebro-spinal meningitis, 89; old age, 75; pneumonia, 377; small-pox, 419; sunstroke, 30; accidents, 155; suicide, 29; murder, 6; other causes, 1,171. Total, 6,506. Still births, 498.

Lt. Col. E. S. Abadie, Surgeon in the U. S. army, died at his residence in this city, on the 28th inst., from the effect of injuries received while alighting from a street car, being knocked down and run over by a passing vehicle. Dr, Abadie was born in France, Aug. 16, 1809, and consequently at the time of his death was in his sixty-sixth year. His family settled in Philadelphia, where he pursued his medical studies at the University of Pennsylvania, and upon their completion was admitted into the army as assistant surgeon, his commission bearing date of 1836. He passed through the Cherokee and Mexican wars, and during our late struggle was medical director upon the staff of Gen. Canby. After the war he was appointed medical purveyor in St. Louis, and at a subsequent period medical director of the department of the Lakes. Col. Abadie was well known and much esteemed in this city, having been frequently stationed here during the long course of his service in the army, and it may be said that St. Louis was his home; for here it was that all his interests and affections were centered, and he, no doubt, looked forward to the day when, after his long and honorable services were ended, he would seek well-merited repose amidst friends and family.

Although Dr. Abadie had attained a ripe age, he was in all the vigor of mental and physical health when he met his lamentable fate. In the death of Surgeon Abadie, the army has lost a capable officer, and the profession an esteemed co-worker.

Original Communications.

SOME REMARKS ON COLICA PICTONUM.

BY W. W. WATKINS, M. D.

Thinking some remarks on lead poisoning would be of interest to those medical men who rarely meet with it in their practice, I will present them, residing as I do, in a region where the poisonous influences of that metal are plainly developed, and having had considerable experience in the treatment of that disease, although differing, perhaps, in some respects, from those of others:

A residence of not quite three years at this place has brought under my notice, about fifty cases of so-called "mine sickness," about all of which occurred in the laboring class, or those employed at and about the smelting furnaces.

These furnaces are the open Scotch hearths, and stacks or cupalo furnaces, upon which are smelted and refined the lead ores, called *Bonne Terre*, Galena in coarse lumps and fine sludge, also an ore composed of a mixture of nickel, cobalt, copper and lead. The poisonous emanations from these furnaces not only affect man and the inferior animals, but its effects are also visible upon the herbage and trees adjacent to the works; cows which feed upon the neighboring grounds; dogs which follow the workmen to the works and partake of scraps of luncheon from their masters' baskets, often are seized with this complaint, presenting all the symptoms of lead poisoning, and unless relief is obtained, many of the cases terminate fatally. The poison is communicated to the system by inhalation, absorption and contact, from the effect of the powerful blasts that are necessary to conduct the process of smelting; minute particles of the mineral fill the atmosphere which are unconsciously inhaled, also permeating the clothing to the skin and accumulating thereon, lodging in the beard, under the nails, and finally finding a resting place upon every accessible part of the body; by contact, by the handling of the "pigs" after moulding, the bars and other implements used in working the hearths and stacks.

I will not consume your valuable space in rehearsing the symptomatology of this disease, as I do not find it to differ much from that laid down in our regular text books; that prominent sign, the blue line of Burton, always manifesting itself; indeed, so much confidence do I have in that feature, that were a patient to present himself with all the other symptoms of saturnine colic, Burton's line excepted, I should consider that I had another disease to contend with. I have met with three cases of lead encephalopathy, as described by Tanquerel, two of which proved fatal, one dying of coma, the other in a raging state of insanity, with the symptoms present peculiar to acute meningitis; the third case was a combination of delirium and convulsions which readily yielded to a free exhibition of the iodide and bromide of potassium. I have never, at this place, seen any cases of local paralysis such as the drop wrist, etc., excepting one instance, that of a dog, and that only partial. Two patients complained of a weakness of the extensor muscles, which rapidly disappeared under treatment. Those patients who have once been contaminated and recover, when again exposed, are much more susceptible to the influence and yield more readily to the disease than at first, also, according to my experience, more difficult to treat, requiring a longer time to bring the system under the influence of remedies.

As to treatment, we are generally called to the lower classes after they have exhausted all of their household remedies, in vain endeavors to procure evacuations from the bowels, for their views of the case are, that when that is accomplished the battle is over; in part, perhaps, they are not far from right. My first object is to relieve the pain, which is nearly always present, and of the whole list of anodynes, I find none to answer the purpose so well as opium or some of its salts; where the pain is so acute and agonizing the sulphate of morphia hypodermically administered usually brings immediate relief; in its remittent form, that we sometimes observe, the tr. opii will answer generally most admirably. From the first onset I exhibit what I consider the best antidote we have, namely, the iodide of potassium, for if we have specifics, I certainly con-

sider this one of them in colica pictonum. We can give it combined in solution with the tr. opii., as follows:

℞ Kali. iod. 3ii.
Tr. opii. 3v.
Syr. zingiberis,
Aq. menth. pip, *aa* ʒiv. misce ft. mist.
Sig.—One tablespoonful every four hours.

The application of flannels wrung out of hot water as warm as can be borne, applied to the abdomen, affords much comfort and relief. I have also derived benefit from the application of mustard, and frequently have used warm hop poultices, to be changed as often as they become cool. My experience with the chloral hydrate has not been satisfactory in this disease, the tendency to vomit being encouraged by the administration of that remedy, no matter how slight the prescription is prepared. Blisters I rarely resort to, except in chronic cases where there is a lack of tonicity of the bowels; where they constantly need a laxative for days afterward, then I believe I have seen good effects from the application of a large blister. The warm sulphurous baths I heartily endorse, but, with the ignorant classes I find it difficult to induce them to accept it. Our main principal object in this disease is to produce early and free evacuations from the bowels, and I have found no remedy so effective and at the same time so harmless as the ol. ricini; and here I will remark, it is truly astonishing what quantities are sometimes taken without bringing relief; often from eight to twelve ounces in thirty-six hours. I do not believe in those heroic doses that are administered in the early stages by some practitioners, neither would I sanction the early and indiscriminate use of the ol. tiglii. I accept the latter as a dernier resort. I have seen patients brought into a low state of marasmus from the exhaustive diarrhœa following the exhibition of the Croton. I would give an adult patient one tablespoonful of the castor oil every two hours accompanied with broths, gruels, light soups *ad libitum*, and after a proper length of time had elapsed, with no effects of the castor oil visible, I would throw large quantities of warm water impregnated with castile soap into the rectum at intervals of two hours until I succeeded in bringing fœcal matter. In looking over my notes I find a case where there had been no evacuation for nine days. I immediately resorted to clysters and the third attempt brought relief with copious discharges, at first of scybala followed with natural fœcal matter. I believe the ol. ricini is greatly assisted by bland mucilaginous drinks in an infusion; linseed or slippery elm. Frictions over the abdomen I believe to be advantageous, and I am convinced that no harm will arise if we accompany the rubbing process with a liniment of ol. terebinth, alcohol and ol. olivæ equal parts. I rarely confine a patient to his bed if he feels like moving about; I would rather encourage moderate exercise if there is not too much prostration.

A word in regard to prophylaxis: I am in the habit of recommending the acid drink from three to four times a day; while exposed at the furnaces, from six to eight drops of the elixir vitriol in a full glass of water sweetened to taste. Careful ablutions of all parts of the body when the days work is done, more especially the cleaning of the nails, hair and beard from any of the metallic dust. Upon the appearance of slight constipation a full dose of ol. ricini; the careful protection of the drinking water about the works.

It is a prevalent idea among the working class, that the use of alcoholic drinks act as a preventive of this disease, but in my experience those cases noted for their severity, were those of habitual topers. I have observed that those of temperate, cleanly and regular habits, resist the poisonous influence to a much better degree, and when attacked yield more readily to treatment than the other class above mentioned. I have found that the free use of sweet milk as a part of the diet, is resorted to as a prophylactic by some of the workmen, and, I am inclined to think, with benefit.

To do the subject of colica pictonum justice would fill a small volume, and I have endeavored to merely give a few brief practical remarks, thinking it might be of interest to some members of the profession who rarely meet the disease.

MINE LA MOTTE, MO., Jan. 1875.

Two more deaths from chloroform are recorded; one of a lady in Kingston, caused by the inhalation of chloroform prior to the extraction of a tooth, and the other, in a healthy brakeman, while under the influence of the same anæsthetic, in a dentists chair in Boston.

Original Lectures.

SOME OF THE MENTAL CHARACTERISTICS OF ORDINARY DISEASES.

BY WM. B. HAZARD, M. D. (*Bellevue.*)
Adjunct to the Chair of Psychological Medicine and Diseases of the Nervous System, Mo. Med. College.

Delivered before the class of Missouri Medical College, Jan. 4th, 1875. Reported for the RECORD by VICTOR BIART.

GENTLEMEN:—In speaking of the mental characteristics of ordinary diseases, I have to point out the fact, that just as all diseases have certain physical symptoms which assist in their recognition, so many diseases have certain well marked mental characteristics equally important in forming the diagnosis and prognosis.

Speaking of mental characteristics leads us to the consideration of the nature of the mind, a subject which has always been, and continues to be the subject of discussion, sometimes of acrimonious dispute. This discussion derives much of its acrimonious character, in my humble opinion, from the unnecessary involvment of the question of the existance or non-existance of a soul in man, a principle which shall survive forever. Although the latter question belongs rather to the theologian than to the physician, for the purpose of setting myself right upon the question of materialism, I will briefly state my own views, which are also the views of many so-called materialists:

The mind, I conceive, is the product of the activity of the ganglionic cells of the cerebral convolutions, so to speak; while I regard the immortal soul as something permanent and as representing the entire individuality, physical as well as mental, of the human being, and in no wise as representing the mental characteristics only.

That the mind depends upon the material organs, and is therefore a form of physical force is clearly indicated by the facts of everyday experience; that it is differently affected by all the different physical conditions to which the individual is subjected.

Thus, if a person is well nourished, and his cerebrum is consequently supplied with an abundance of pure, arterialized blood, there is experienced a feeling of contentment, of general well-being and satisfaction. We all recognize this fact when we speak of after-dinner joviality and good nature. The crossness and irritability of the hungry man is equally proverbial. Irritability and hunger have a well-known relation, and are sometimes convertible terms.

The variable temper exhibited during convalescence from acute diseases is rather characteristic of this condition, and bears a close relation to the condition of weak digestion and inordinate appetite calling for frequent supplies of easily assimilable food, met with in those cases.

As the brain requires an abundant supply not only of duly arterialized blood, but of pure blood, it is evident that the presence of any effete or excrementitious material therein must exercise a deleterious effect upon the mind. That this *à priori* reasoning is correct is proven by the effects upon the mind, the drowsiness and mental hebitude of cholæmia. In organic disease of the kidneys, when uræmia is induced, the mental disturbance is still greater and we know the often extreme danger of this condition.

Physical pain, of a certain kind and intensity, is said to stimulate the mind, making the individual capable of higher mental effort than was possible for him to accomplish during health. It has been said that the remarkable eloquence of Robert Hall was mainly due to the pain he endured from the spinal disease from which he suffered.*

Dr. Conolly mentions a gentleman whose mental faculties never reached their full power except under the influence of a blister.†

The paroxysms of mania may also exert a stimulating effect upon the mind. Dr. Willis mentions the case of a gentleman who said that he anticipated a paroxysm of periodical insanity, to which he was subject, with impatience, because he then enjoyed a high degree of pleasure. "Everything appeared easy to me. No obstacles presented themselves, either in theory or practice. My memory, all of a sudden, acquired a singular degree of perfection. Long passages of Latin authors occurred to my mind, etc." ‡

There are two conditions of bodily disease characterized by exaltation, or increased brilliancy of mental manifestations. The first of which is the first or forming stage of pulmonary tuberculosis; the other, not so common, is that of chronic gout. Whatever the cause may be, it is a fact that, in many of these cases an increased activity of the mind does exist. There is, as it were, almost an aureole of intellectual light around the heads of those who are about to enter upon the fated pathway of pulmonary tuberculosis. This may be explained, to some degree, by the hightened temperature of the blood and increased frequency of the heart's action in these cases, or there may be some connection between the lungs and the vaso-motor nerves supplying the arteries of the intellectual centers of which we are not at present informed.

It is not so difficult to explain the intellectual power of the subjects of chronic gout. Their

* Greg, Enigmas of Life, page 170.
† Dr. Conolly, Indications of Insanity, page 214.
‡ Abercrombie, Intellectual Powers, Section IV, Insanity.

blood is highly charged with nitrogen—the waste of tissue, or the defectively digested matters which never become tissues, but which proceed at once upon a retrograde career.

The presence of nitrogenized elements in the blood is necessary for the production of nervous force, and, therefore of mental activity. We all act upon this principle, although we may not understand its rationale, when, in order to generate this nervous or vital energy rapidly, we administer albuminous food in a form which allows it to be easily assimilated, viz: beef tea, soft-boiled eggs, etc.. Carpenter ("Human Physiology," sec. 62.) has pointed out this fact, and Liebig ("Letters on Chemistry,") speaks of the great influence of food upon the disposition of individuals. M. Metz, of Mattray, who had charge of an institution for juvenile reform, found the great value of a liberal dietary; its indispensible necessity, in fact, in giving strength of will to irresolute, indecisive children.

This is a point of great practical value in the treatment of such children; by a highly nitrogenized diet they may acquire courage, decision of purpose, and a disposition for exertion—in short, what is expressively called in the *argot* of the day, "back-bone." The mixture of brandy and gunpowder given to marines just prior to naval engagements, not such a long time ago, probably owed some of its property of inspiring the combatants with wild fury, and blind fearlessness of danger, not to the alcohol alone, but to the highly nitrogenized compound with which it was combined.

The indecision and painful irresolution which are so apparent in chronic organic heart disease may be ameliorated, to some degree, by an easily assimilable nitrogenized diet.

Schrœder Van der Kolk observes the unusual precocity of rachitic children, and this is due, not to the diathesis (scrofulous) *per se*, but, probably, to an excess of lithates, a matter rich in nitrogen, in the blood.

Schrœder Van der Kolk agrees with Bichat, that *cœteris paribus*, short-necked individuals, have a better sustained power of mental work than long-necked individuals. When the brain is superimposed upon a short neck the supply of arterial blood is more direct, and the blood pressure upon the brain is more equable and greater than when the brain is fed by a long carotid. Like the steam engine, the power to generate force varies with the pressure upon the square inch, and the proportion is direct. The same author (Van der Kolk) also states: "It is a known fact that deformed hunch-backed individuals, in whom the blood flows more quickly and strongly toward the brain, are remarkable for vivacity of spirit." These people are cut off from many spheres of activity, but, by a sort of compensation, an excess of development in one direction when all the energies are there directed, there is often an excessively intellectual development. But, as the blacksmith's biceps can not be developed beyond a certain point, fixed in each person by his original and acquired organization, however many and powerful may be the factors concurring for its development; so this compensatory development does not give a full explanation of the observed facts. An anatomical explanation may be added. There is a considerable curvature of the thoracic aorta, this produces an obstruction to the flow of blood toward the lower segment of the body, and Rokitansky has pointed out the existence of hypertrophy of the heart in cases of distorted aorta. Now, this distortion occurs below the origin of the arteries going to the head. Thus we have an increased supply of blood to the brain from the increased power of the cardiac impulse and the impediment to the flow of blood toward other parts.

The effects of mental overwork are very noticeable, to the experienced physician, in those who, from their calling, are compelled to labor incessantly and excessively with their mental faculties. Insanity is common among these over-taxed laborers. Divines, jurists, journalists and physicians are of this class. Among the first symptoms of this mental overwork is a certain irritability or irascibility of disposition. Now, when this is observed, cessation from mental labor is imperative, and rest, with sleep, is indispensible. A neglect to observe these mental manifestations and directions to follow out the indications will throw a grave responsibility upon the family physician.

According to Laycock and Schrœder Van der Kolk, there are two distinct areas of brain, differing in function, and in vascular and vaso-motor supply; the one, the posterior, supplied by the basilar, formed by the two vertebral arteries, supposed to contain centers for the emotions and systemic sensations, (these comprise such sensations as are transmitted from the thoracic, abdominal and pelvic viscera, which are felt but not perceived;) the other, the anterior, supplied by the two carotids, containing the centers of the intellect, the motor functions, and of the peripheral sensations.

The explanation of the different effects produced upon the mind by disease situated in different cavities of the body, is probably to be found in the fact that the vaso-motor nerves, supplying the encephalic arteries, are derived from ganglia of the sympathetic nervous system having distinct connections with viscera contained in the different cavities. The vaso-motor nerves of the vertebral arteries spring from the inferior—those of the carotids are derived from the middle and superior cervical ganglia of the sympathetic system. Fibres from the greater splanchnic have been traced up the cord of the sympathetic to the inferior cervical ganglion, and, indeed, Cyon and Aladoff have traced fibres from the liver, by the

route mentioned, up the vertebral arteries. Thus it is seen how the emotions sympathize with the organic processes; and melancholia and mental depression accompanying disturbances of the abdominal and pelvic vicera is seen in a new light.

In diseases of the lungs depression is rarely present. Where it is observed it may be due to an intelligent appreciation, on the part of the patient, of the gravity of his situation, or, possibly, to some abdominal complication.

The unreasoning hopefulness of sufferers from phthisis is proverbial, and is recognized in the term *spes phthisica*. The state of the circulation, and the condition of the emotions, in pulmonary and abdominal diseases, are equally contrasted, and seem to have a close relation; *e. g.*, contrast the full, and sometimes bounding pulse of lung affections, with the small, and not seldom, thready pulse of peritonitis. The hopefulness of the one, and the depression and tendency to collapse of the other, are significant.

Melancholia is generally dependent upon some abdominal or pelvic disturbance. When it is sympathetic with abdominal trouble the delusions have to do with sorrow, dejection and self-accusing; when the pelvic viscera are at fault there is also the same depression, but there is superadded a tendency to religious ideas, those connected with the future life, such as having committed the unpardonable sin, that the soul is forever lost, etc. This connection between diseases of the generative organs and their psychical manifestations is very suggestive. These organs make provision for the future, and the insane ideas are related to the future life.

In the general cerebral anæmia, often met with in the badly nourished poor, there is a condition closely allied to melancholia. There is a state of depression, and the emotions are very easily disturbed. They weep from slight causes, often there is a fear of localities and sometimes a state of panphobia—a fear of everything. It is the cry of the suffering nerve centers for a supply of healthy blood. This sad condition often takes the direction of the relief afforded by alcohol, and these cases of drunkenness are of the most intractable to be met with in practice, for it is based upon a morbid physical condition.

The psychical disturbances grouped under the term hysteria, occur, generally, from repressed passion. The loss of emotional equilibrium is the more easily induced when there is any disturbance in the bodily health. Hysteria is an explosive discharge of the emotional centers, as epilepsy is a similar discharge of the motor, and *mania transitoria* of the volitional centers. These explosive discharges resemble the "blowing off of steam" of the steam engine, when the pressure becomes dangerously high, after the engine has stood still for some time.

There is a well-marked relationship between goitre, (enlargement of the thyroid gland), and mental deficiency. Accordining to Schrœder Van der Kolk, this is due to a derivation of blood from the encephalic centers by the enlarged thyroid arteries. Another theory is, that, from the excess of the salts of lime in the blood, the fontanelles are prematurely closed, and that the thyroid gland acts as a diverticulum for the excess of blood normally directed toward the brain; however, the enlarged thyroid and the Cretin skull are not always met in the same individual.

In Exophthalmic Goitre, or Graves' Disease, hysteria is quite a characteristic psychical accompaniment. We cannot explain how, but we know that there exists a close connection between the exophthalmos, the enlarged thyroid, the cardiac perturbation and the easily disturbed emotional condition. The subjects are generally females, and often, very interesting individuals of that sex—those who converse easily and agreeably, and show considerable vivacity of spirits—however, their easily disturbed emotions do not render them very desirable domestic companions, for these explosions are most often directed toward the favorite member of their family.

Much mental and emotional instability is generally found accompanying chronic heart disease. There is a mental change, usually for the worse, in these sufferers; there is irresolution, suspicion, vascillation and caprice; the cerebral centers are imperfectly nourished, and false and morbid feeling is the product; these feelings have the same relation to normal thought, that Emerson has said, that evil has to good, "that it was good in the making," and more perfect elaboration would produce good, and not morbid feeling.

In chronic gout there are many different mental conditions. It is a most Protean disease. We have already seen how the intellect is stimulated in the earlier stages, now, in the advanced period there is a certain explosiveness of temper alternating with depression, the consequence a poorly nourished brain from spasm of the arterioles. Instead of the stimulated condition of the cerebral cells, sustained by a constant blood supply, this blood containing the excess of nitrogenized principles, we have the same causes of cell irritation with a blood supply unequal in quantity from degeneration of the heart walls (vide Bucknill and Tuke, ed. 1874). The admixture of irritability and suspicion, of bad temper and anxiety is all the more aggravating from the patient being aware of the unreasonableness of his conduct.

In the victims of cancer there is almost always to be observed an apathetic expectation, a sullen looking forward to the inevitable termination, not a resignation by any means.

The fortunes of cancer doctors are not made by the anxiety of these patients, but by their friends, who are anxious and ready to believe that the progress of this terrible malady can be stayed. There is a sort of exaggerated volition in these cases and the instinct of self-preservation seems to be subordinated to this curious volitional control.

The mental condition in pyæmia is entirely different from any of the foregoing. From the initiatory chill until the almost inevitably fatal termination, there is an utter unconcern of the patient as regards the result. This is apparent before the outbreak of the delirium and is quite characteristic. In some cases, however, the pyæmic indifference is not observed. (Pyæmia—Astley Cooper's Prize—Braidwood.)

In diabetes mellitus the mental attitude of languor and indifference is often as marked as the physical symptoms and chemical tests. In Asiatic cholera the mental indifference is often in painful contrast with the anxiety and fear which characterized the individual before the onset of the disease.

The mental condition in the delirium of fevers is a subject of much interest. It is often regarded as objectless, aimless mental action. But there is nothing outside the ordinary mental condition, no new lines of thought marked out, only a misdirection of lines common to the normal condition. This misdirection is owing to the weakening of the special senses, particularly that of sight, and the disturbed action of the cerebral cells due to the superheating of the blood and the presence of poisoned materials in the cerebral capillaries.

In old people, those becoming demented by the gradual wearing out or degeneration of the cerebral cells due to senility, the mental attitude is that of indifference to ordinary subjects of interest, the mind dwells upon the scenes of the past and the mental grasp grows weak and illusive; the mental vision is deceptive and untrustworthy. Petulance and caprice mark their relations with others, and suspicion of and aversion toward their friends and relatives most dear to them is often present. This is due in a great measure to a change in the manner of those surrounding them, and a more or less distinct perception of failing powers and mental impairment on their own part.

In the state of premature senility developed by the abuse of alcohol, chronic alcoholism, the same condition of mental enfeeblement, of suspicion and distrust is developed. Their malice approaches in character to the condition which in the lower animals is called viciousness. Such persons are simply dangerous to those dependent upon them, and their presence is bearable only because they have seldom strength of will sufficient to enable them to carry into execution their evil intentions.

Finally, there is a condition involving a more or less impairment of intellect following recovery from many acute diseases. Sometimes one, several, or all the acquirements of the mind are temporarily obliterated. Many curious instances of this kind are noted in Abercrombie's well-known work upon "The Intellectual Faculties," and in Carpenter's recent publication upon "Mental Physiology." After Typhoid fever the memory is usually affected, and in the army this is so well recognized that soldiers, after recovery from typhoid fever, are not placed upon guard for several weeks, as they are almost certain to forget the watch-word. After the lapse of a considerable period, however, the intellect may, and often does, become more acute and powerful than before the attack of disease.

I am indebted to a very suggestive article by Dr. J. Milner Fothergill, in the *Journal of Mental Science* for October, 1874, for the larger part of the ideas just enunciated. In many cases his words are quoted verbatim.

Clinical Reports.

CHILDREN'S CLINIC.

PROF. GEO. W. HALL'S CLINIC, ST. JOHN'S HOSPITAL—REPORTED BY DR. J. P. KINGSLEY.

CASE I.

Katy B., aged ten months. Has had a slight hacking cough for three or four days; restless and feverish, particularly at night; refuses to take the breast; somewhat costive since taken sick; mother and father healthy; does not know how she caught cold; "makes a face" when it coughs and twists its body at the same time.

Remarks.—We have reason to suspect, gentlemen, from the history given us, that we have a case of pneumonia. We find slight dullness on percussion over a great part of the right lung, more marked, however, at the base than elsewhere. You must bear in mind, gentlemen, that the dullness is never so marked in children as in adults.

I presume Professor Robinson has told you that the crepitant rale is pathognomonic of pneumonia in the adult. I would have you bear in mind that this is not heard in young children except during the act of deep inspiration, which usually occurs immediately before it commences to cry. You will hear instead, however, abundant fine subcrepitant rales.

In children that are quite young, pneumonia is usually preceded by bronchial inflammation. When it appears as a primary affection the attack is usually quite sudden. The child becomes peevish, restless. feverish, is inclined to

cry and has very little desire for the breast. A short dry hacking cough is heard on the second day, and even sometimes on the first. The cough soon becomes more severe and the child attempts to restrain it, and the contortion of its features evidences the pain produced by coughing. Immediately after coughing the child will frequently cry. This contortion of the face and body, followed by a sharp cry or crying is not apt to occur in uncomplicated bronchitis, but may occur in pleurisy. The child will often nurse a second or two and then let go the nipple to cry.

By watching children closely, gentlemen, you will be materially assisted in forming your diagnosis, and bear in mind that an intelligent nurse or mother can always give you much valuable information. The anxious mother will watch her little darling with the tenderest care and note every change, and if you are unobserving it attracts her attention at once and impresses her unfavorably.

Pneumonia, gentlemen, as you may have observed in attending our clinic, is a disease that prevails most in the winter and early spring months. We find by consulting the mortuary reports of our own city, that one-seventh of the deaths that have occurred during the past winter have been caused by pneumonia and bronchitis together, and if we exclude variola, about one-sixth. Many practitioners mistake bronchitis for pneumonia. The older writers made this mistake constantly, and by so doing have rendered their statistics almost valueless.

You will find by consulting the reports of our city for December and January that pneumonia alone has been the cause of more deaths than any other disease except variola. This fact alone is sufficient to impress you with its importance. Dr. West states that during the first five years the proportiou of cases of pneumonia to other diseases is 10.3 per cent., while in the succeeding five years the proportion is only 1.3 per cent. There is perhaps not this difference; in fact, statistics do not bear him out in this statement. The proportion of deaths from pneumonia in St. Louis for the past six months is about as follows: July, August and September, 1 to 50; October and November, 1 to 15; December and January, 1 to 10.

Our fall has been unusually mild and dry; in fact the temperature of the past year has averaged one and a half degrees higher than for any year during the past twenty.

I have frequently called your attention to the fact that children under five years of age do not expectorate, and that rust-colored sputa is seldom present in children over this age, but instead mucus tinged with blood.

In the treatment of these cases, gentlemen, remember that it is important to do nothing to interfere with convalescence. Beware how you use depressing agents, lest you depress to a point from which your patient will not return. Be careful in the administration of opiates lest you diminish the sensibility of the mucous membrane to such an extent that the bronchi become clogged for the want of an expulsive cough, which nature has so wisely provided to afford relief.

We will direct:

℞ Potass. Bromid. gr. xxiv.
Syr. Aurant. Cort. ʒ j.
Aquae. Cinnam. ʒ ij.
M. S.—Teaspoonful every two hours.

Bromide of potassium, gentlemen, exerts a peculiar influence over functional disorders of the nervous centers. It promotes sleep, allays nervous irritability, relieves pain, subdues the morbid irritability of the mucous surfaces, and while it so acts, it possesses the advantage of not producing constipation like opium.

Third day of treatment.—Coughs continually; takes the breast often but nurses very little; very restless at night; fever high; vomits occasionally after taking medicine; bowels constipated; respiration rapid; skin hot and dry; dullness on percussion over entire right lung; considerable dyspnœa; subcrepitant rale heard over entire right lung.

Remarks.—Our little patient, gentlemen, has become paler and somewhat more emaciated. The inflammation has extended and now involves the entire lung. The dyspnœa as is usual, has advanced with the disease. The respiration is rapid, and may vary in these cases from fifty to seventy-five per minute, and in some cases even reach one hundred. The breathing is labored, as you observe; there is also dilatation of the alæ nasi at each inspiration.

In very young children you cannot with any certainty promise favorable results. The child may die before passing into the second stage, often very suddenly, without any apparent change. When exhaustion becomes apparent, respiration difficult and rapid, the face and extremities blue, the probabilities are that the little sufferer will soon pass beyond the limits of human assistance.

We will again direct the bromide in somewhat larger doses for the purpose of allaying the nervous irritability and also to subdue the morbid irritability of the mucous membrane:

℞ Potass. Bromid. ʒ ij.
Syr. Aurant. Cort. ʒ j.
Aquae. Cinnam. ʒ ij.
M. S.—Teaspoonful every two hours.

We will direct in addition a teaspoonful of oil to relieve the bowels.

Sixth day of treatment.—Thinner and paler; has nursed more than usual to-day; coughs less; not quite so restless; sleeps more: very nervous; urine scanty.

Remarks.—But very little change has taken place, gentlemen, in our little patient. The disease is running its course. It seems to bear up well, and to-day we feel a little encouraged. We shall continue the remedies and direct in addition a teaspoonful of sweet spirits of nitre in a half tumbler of water; a teaspoonful to be given every two hours.

I would impress you with the fact, gentlemen, that the nervous system is always involved to a greater or less extent; the anxiety, agitation and nervousness evidence this fact; there is also not unfrequently a certain amount of stupor, and in some cases even delirium or convulsions.

During the prevalence of cerebro-spinal meningitis in St. Louis, many cases of pneumonia were mistaken for this disease by incautious practitioners. I may even say, that the cautious practitioner is occasionally deceived. Meigs and Pepper speak of a case which for five days one of them supposed was either meningitis or hydrocephalous, and was treated accordingly. The rapid respiration, however, attracted attention, and on counting was found to be eighty per minute. The chest then, for the first time, was examined and the proper diagnosis made. It was latent pneumonia simulating hydrocephalous.

The urine in these cases, gentlemen, is scanty and high-colored, and a portion of the constituents that should be eliminated are retained in the blood, thus poisoning the system and producing, or assisting to produce, in many instances, the nervous phenomena so frequently observed. The poisoning is not due to the retention of any one constituent of the urine, but rather to an accumulation of a number of products of disintegrated nitrogenous tissue which the kidneys have not taken from the blood. Perhaps it would not be out of place for me to state here that experiments have been made which would seem to prove urea alone, harmless.

Petroof has injected a large amount of urea into the blood without producing coma and Stammus makes the statement that urea injected into the blood is harmless.

Eighth day of treatment.—Pulse and respiration not so rapid; less dilatation of alæ nasi; cough looser; nurses more; consolidation of greater portion of lung: tubular respiration heard at apex.

Remarks.—We have every reason, gentlemen, to feel encouraged; I think our patient has passed the critical period. We will direct:

℞ Potass. Iodid. gr. xxiv.
Syrupi Aurant. Cort. ℥ j.
Aquae Cinnam., ℥ ij.
M. S. Teaspoonful four times a day.

Twelfth day of treatment.—Appears much better; commencing to play a little; quite emaciated and weak; bowels regular; nurses well; coughs easily; slight friction sounds at base of lung; blowing sounds also crepitant and subcrepitant rale below scapula. Continue iodide three times a day.

Sixteenth day.—Very much improved; some dullness on percussion at base of lung; nurses well and feels well; bowels regular. Discharged.

A COMPLICATED CASE OF OBSTETRICS.

REPORTED BY M. YARNALL, M. D.

The unfortunate female whose accouchment is here reported presents, from fecundation to the delivery and recovery, so many remarkable features and complications that it is deemed proper to record the case. For the history previous to delivery we are indebted to Madam Judson, of this city, an accomplished obstetrician and graduate of the medical faculty of Paris, whose patient she was and at whose house she was delivered:

"Miss ——, aged twenty-two, was invited last winter by a lady, to spend some time with her at her home in Canada. Shortly after her arrival at her friend's house, the husband became very familiar, but not enough to alarm her. On the 31st day of January, 1874, he, in his wife's bed chamber, in the presence of his wife, succeeded in raping his victim, who is a delicate person and was physically unable to offer sufficient resistance to prevent the outrage; the wife was so horror-stricken that she was unable to interfere. It was soon discovered that the patient was impregnated, and she was shortly afterward placed under the care of Madam Judson, who gave her every attention that kindness, skill and experience could suggest. At the sixth month of gestation was as large as is usual at full time; at the seventh month, the first examination per vaginam did not reveal the presentation; at the eighth month, the abdomen, which had continued to distend, was enormously large, causing great distress and preventing locomotion, in addition the patient suffered with bleeding of the nasal mucous membrane and constant pains in the limbs and back, she was unable to rest in any position for any length of time; otherwise her health was good. At eight and a half months the presentation remained undiagnosticated.

The muscles of the abdomen, viz: the obliquus interums, the transversalis abdominis, and the rectus abdominis were widely separated at the linea alba from the ensiform cartilage to the symphysis pubis, there being only integument and fascia to prevent the uterus from escaping from the abdominal cavity. At this time Dr. Papin was consulted and found

the condition of the patient as already stated. At full time, (Oct. 30th,) two hundred and seventy-three days from time of fecundation, examination still did not reveal the presentation. From this time until November 12th the patient suffered constantly; at this last date the membranes ruptured and a large quantity of liquor amnii escaped, so much indeed that the bed was saturated and the water ran through on the floor. This gave the patient great relief. The os uteri was but slightly dilated when the umbilical cord prolapsed completely and soon ceased to pulsate. Slight and insufficient labor pains occurred at intervals from this time until Nov. 15th, (three days), when the pains became more severe, but were only effective in as far as to dilate the os uteri, though the presenting part, the pelvis of the fœtus did not engage in the superior strait, but remained stationary. After these more severe pains had lasted about twelve hours, they ceased. the patient having become exhausted and very feverish with a feeble pulse of one hundred and thirty to forty, it was evident that delivery must be accomplished without delay or death would ensue. Dr. Papin, in the presence of Madam Judson, Mr. J. C. Yarnall, (medical student) and the writer, proceeded to deliver the patient. Chloroform was administered and the forceps applied to the pelvis, which was in the first pelvic position, viz: sacrum of the child to the left anterior inclined plane of the mother's pelvis. The blunt hook was not resorted to on account of the pelvis of the fœtus being very high and the vagina of the mother very small. The forceps were easily applied but slipped off. The cephalotribe was introduced and applied to the sides of the child's pelvis and the delivery successfully accomplished without mutilation of the child, which, however, had been dead for three days on account of the descent of the funis umbilicalis. This was a male child, and weighed about eight and a half pounds.

As had been supposed, another fœtus was discovered in the uterus with its head high up in the left iliac region. By external manipulation we endeavored to involve the head in the superior strait, but without avail. The forceps were successfully applied to the head. which was above the superior strait, but again they slipped. This child was dead also, and the cephalotribe was next applied without perforating, as it was desired to deliver, if possible, without mutilation. This we found could not be done, so that the perforator was resorted to, the cephalotribe reapplied and delivery accomplished. This child was also large, weighing about seven pounds and occupied the fourth position of Baudeloque's vertex presentation, viz: the face to the left anterior inclined plane of the mother—a rare position and a difficult one to deliver. The perineum was lacerated almost to the sphincter ani, which has partly healed since. There were two placentæ, both were delivered without difficulty.

The delivery required about one hour. There was little hæmorrhage, but the shock, which lasted twelve hours, was so severe that for a time dissolution seemed inevitable. After this she slowly rallied, but was confined to her bed for twenty-one days.

A few days after the accouchment the odor arising from the patient was most offensive, notwithstanding vaginal injections of carbolic acid solution and glycerine were used repeatedly, and the most scrupulous cleanliness observed by Madam Judson, who personally attended to her. A decomposing clot of blood that the injections did not wash out, was removed by lifting the patient into the erect position, thus causing the putrid mass to come away, a very simple and excellent method.

On the second day, metro-peritonitis was developed, with considerable fever. Madam Judson's treatment was novel and entirely successful: vi. gr. hyd. chlo. mite. was administered, which operated, after which spts. frumenti was given in small doses frequently repeated. No opium was exhibited, but poultices were applied over the abdomen. The symptoms soon disappeared. Madam Judson states that this treatment in her hands has frequently cured cases of puerperal fever.

Now we may briefly recapitulate the complications of this case:

First—The patient was outraged and fecundated at the same time, thus establishing the generally conceded (but sometimes disputed) fact, that fecundation and rape may occur at one and the same time.

Secondly—The enormous distention of the uterus, causing a separation of the abdominal muscles at the linea alba. The contents of the uterus were doubtless over twenty pounds.

Thirdly—A prolapsed funis umbilicalis.

Fourthly—A gestation lasting two weeks over the nine calendar months, a rare circumstance, especially so in a first pregnancy with twins.

Fifthly—A labor so feeble as to fail to involve the presenting part of the first child (the pelvis) in the superior strait.

Sixthly—There being twins, occupying positions making delivery difficult in each case, and requiring instrumental interference; the first child a pelvic presentation with the sacrum to the left anteriorly, and the second child a vertex presentation with the face to the left anteriorly, (a most difficult position to deliver,) in this instance the head had to be perforated, after which the cephalotribe was used successfully.

Seventhly—There were two placentæ, while usually there is in twin cases a compound placenta.

Eighthly—A shock so severe as to make us suppose the patient was dying; yet, complete reaction took place.

Ninthly—Metro-peritonitis following delivery. This last complication, though a serious one in any case, in this instance we were not unprepared to expect, but we hardly dared to hope for what we regard as the most remarkable feature of all, the recovery of the patient.

1601 Washington avenue.

DR. E. M. BARTLETT'S SURGICAL CASES.

REPORTED BY CLAYTON KEITH, M. D.

CASE V.

J. M., aged thirty-five years, while walking the deck of a steamboat, accidentally slipped one leg through a small hatchway, and caught his scrotum on the frame of the hatch, producing severe contusion. Immediately the scrotum swelled to an enormous size in consequence of the effusion of blood. The proper treatment at that time was to puncture the scrotum and evacuate the effused blood; this, however, was not done, and gangrene ensued; the whole of the right half of the scrotum sloughed, leaving the testicle almost naked, its only envelope being the tunica vaginalis testis, through which the testicle could be seen.

The attending physician announced his intention to castrate him, and appointed a day for the operation. I was called in consultation about one month after the accident occurred. I found the patient low, emaciated and almost worn out. The membranous portion of the urethra had sloughed, and patient was discharging his urine behind the scrotum, through an opening in the perineum. I introduced a catheter into the bladder, about three-fourths of an inch of the catheter was visible through the opening in the perineum. I had to guide the point of my catheter in order to get it into the posterior part of the urethra. The testicle was hanging by the chord, entirely exposed; a portion of the septum of the scrotum had also sloughed, so that the other testicle could be distinctly seen through the opening. In view of his low condition I said, "Castrate him and the probabilities are that he will die. Besides, castration is entirely unnecessary. It is a very *depressing* operation to deprive a man thus of his commission. There is loose skin enough left about his anus and scrotum to make him a *new bag*. I can save his life and both his testicles." We gave him chloroform; I dissected up the skin of the right thigh, next the scrotum, in order to make a cavity large enough to contain the testicle, I then slipped the testicle under the skin, freshened the edges of the wound along the scrotum and thigh, and brought these edges together with interrupted sutures. I also freshened the edges of the urethra, from which a portion had sloughed, and united them over a silver catheter. I allowed the catheter to remain four days; after adhesion I removed it daily, cleansed it and replaced it. Patient soon began to improve, and in one month he was discharged, able to pass his urine the normal way, and with a respectable scrotum and two sound testicles. Patient still lives in Pike county, Missouri, and reports that his virile powers are intact. He has had no farther trouble with his urethra, testicles or scrotum.

ADDENDA.

DR. BARTLETT'S LOCAL APPLICATION IN PRURITUS AND PRURIGO—REPORTED BY CLAYTON KEITH, M. D.

Take of arrow root, finely powdered, 1 lb., (Avoirdupois): gum camphor ʒ i; hydr. oxide rubri ϑ i.

Sift the arrow-root, then pulverize the camphor to an impalpable powder by adding a few drops of alcohol, and mix and add one scruple hydr. oxidi rubri and mix thoroughly and bottle for use.

I keep a large quantity of this powder constantly in my office; it is my best application to prurigo and pruritus pudendi, etc., so frequently complained of by ladies. My patients sprinkle the powder on the itching surface daily, and soon report that the itching has ceased and the parts are well. Starch may be substituted for the arrow-root. Let the starch be finely pulverized and sifted. Vinegar is a good application also in such cases.

Correspondence.

THE SIMILIMETER.

[We give place, after some hesitation, to the following absurd and highly amusing account of the Similimeter. The inventor purposely selected the columns of a regular journal as a medium for his publication, hoping thereby to appeal more directly to the skeptical, and confidently believing that it is but necessary to represent properly the merits of his machine, in order to gain adherents to homœopathy on every side.—ED.]

Editor Clinical Record:

DEAR SIR:—Concerning the fact that the only true reason why the law of similia has not been recognized was because of the necessarily intricate and difficult manner we have until

now had of arriving at a true similimum for our cases, I applied myself to five long years of hard study and labor, breadless days and sleepless nights for the invention of a means of reconciling the profession—in facilitating the manner of prescribing according to the law.

I pondered, sought and studied in various directions, only to be met by imponderable difficulties and unsurmountable objections, till at last, by that same spirit which must have actuated the inspired Hahnemann, my soul became refulgent with a ray of celestial light, and lo—it was there!

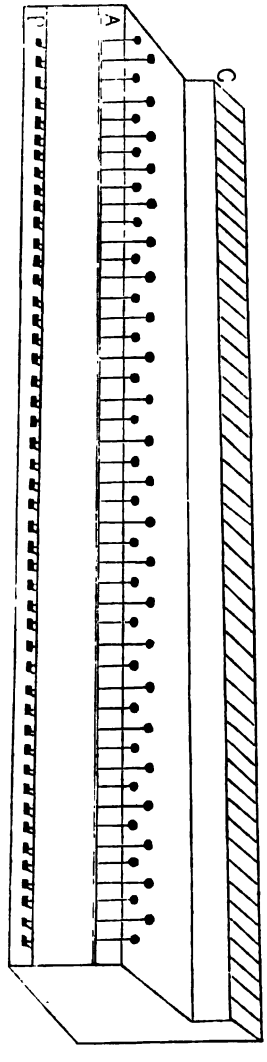

Fig. I.

I have discovered a machine, Mr. Editor, that, though it cost me my very heart's blood in inventing, will in return, cost others myriads of oceans of grateful tears for facilitating the prescription, when a life is oscillating between earth and eternity, so that ere it is too late for the valuable existence to be saved, the proper Infinitesimal may be cast into the scale—a vibration later, it might have been lost, but no, the Similimum has been found quickly, correctly. The oscillation is arrested, the life end becomes heavier and heavier and the being gravitates back to loving arms, to resume a useful existence. Mr. Editor, so radically do I believe in and can prove the efficacy of my machine, that I address even you on the subject, knowing that my description will carry conviction with it.

I would warn you, however, during the perusal of this paper, to control your feelings, do not, because I discard anatomy, pathology, physiology, chemistry and the collateral branches of medicine, do not, I say, hastily cast your works thereon into the fire, but keep them, they will do beautifully for milestones to mark the progress of the Similimeter; possibly as a pedestal for a statue devoted to the fruits of my humble efforts.

Another thing, I do not come before you to peddle a patent right of any kind. All I wish is, to see my great work in universal recognition and then die. I will not be forgotten. I give you the particulars, and if you will publish them to the world—oh Mr. Editor, if you will thus share with me the most philanthropic scheme of the age, I will add my blessing to those of future generations.

Fig. I. is a sketch of a section of the instrument, (which will revolutionize the whole practice of medicine,) encompassing the symptoms of ailments of the mind and disposition, head, eyes, ears, nose, face and teeth, which will suffice to demonstrate its *modus operandi*.

The knobs A are of ivory, and have inscribed upon them some symptoms of the departments to which they belong. To choose one *ad libitum*, the following from the department of "Head" will explain itself:

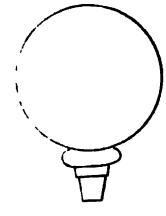

Fig. II. *

Now a patient comes to us with the symptoms on Fig. II. We grasp the knob, pull it down to B, where it is fastened by a retaining clamp of simple shape.

While we have drawn down the knob and fastened it at B, we see that many of the interspaces at C (Fig. I) are not empty, but have been penetrated by little projecting slats, which bear the names of those drugs which cure that symptom.

Then we proceed to the next symptom, depress its appropriate knob to B, and find that

* These words, indicating the symptom, were inadvertently left off the cut: "Burning headache, as if the brain were moved by boiling water.—*Lippe Mat. Med.*"

a number of the slats at C have returned and others have arisen while we have turned down the second symptom knob, and so we go on and on turning down knobs until the totality of the symptom knobs have been depressed, and looking at our drug indicator, (C), we find, standing out solitary and alone the infallible specific for the case before us.

Now let us investigate how all this comes about. Let us take out one of the knobs at A and examine it:

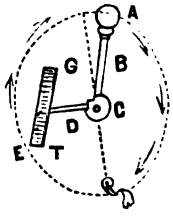

FIG. III.

A is the symptom knob before discussed. B, its shaft, C, its fulcrum, or joint, all made of brass, as also is D, a bar going to and firmly holding E, which is a section of the drug elevator cut or broken off at F and G. Now when the knob A is depressed along the circle A H and fastened to the clamp at H, it elevates the bar F G to a parallel with and closely approximating the posterior surface of the anterior covering of the box marked by the dots I H.

During its transit the drug elevator has come into contact with the drug slats and has elevated them up through the orifices at C in Fig. I, by means of its long sharp projections, while its lance-like ones have been the means of removing and displacing those drug slats already elevated into place, and which are not indicated by the last depressed symptom.

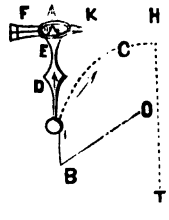

FIG. IV.

Fig IV shows the manner in which a drug slat is elevated and retained above the drug surface at C in Fig. I.

The tine O B, taken from the drug elevator before described is caused to describe that part of a circle marked by B C with O for a center, and in so doing lifts the drug past D through the retainer F as high as the part enlarged above E, which is caught and retained, exposing its upper surface to sight, and on which the name of the appropriate drug is inscribed. It remains there until the Similimum is arrived at, unless it is not indicated by the next symptom, whose knob at the proper place, instead of a tine, has a short lance which projects up through the spring at K, when the knob is depressed, and by opening the spring allows the part to fall down again into its receptaculum below, there to remain until again projected.

The entire machine is to be constructed of a size compatible with the dimensions of the practitioner's office.

To those who wish to, and I know that numbers will, construct my machine, I will with pleasure lend whatever assistance I can, and that without fee or price, and if through this paper, as the world must be entirely converted from the horrors of allopathy, and if the writings of Hartshorne, Niemeyer, Hebra, Atkin, and myriads of others *must* be consigned to the flames, then let it be said that the intended victims of scientific pathology and therapeutics were snatched from their jaws by the similimeter.

If there is to be a holocaust, of what must now appear as the relics of allopathy, let there be inscribed upon the resultant ashes:

Hier liegt der Stern der verbrannten Allopathie,
Dem Zukunfts-Arzt als Schnupftabak zu dienen.

FAUSTUS VURSTHALS, M. D.
ST. LOUIS, Jan. '75, Anno. Homœop. 99.

A LUSUS NATURÆ.

MR. EDITOR:

In the early part of June, 1874, I was called to attend a lady in her third confinement. Nothing abnormal about the first, child well developed and healthy. The second was premature, say six months advancement, lived a few hours and died. Nothing abnormal in its formation. Third accouchment came off at the full term; child fully formed and healthy, except the visible part of the genital organs, which were so well balanced between the two sexes that it was impossible to discriminate between them; however, I advised the parents to christen it a female. This was, of course, a veritable hermaphrodite, the first I have ever met with during a continued practice of thirty years, and, in fact, the first I ever saw. The abnormal condition of the external genital parts consisted in the rudiment of a penis, the glans only presenting, and imperforate, a slight rudiment of the prepuce partly covering the glans. This body occupied a position slightly below the anterior commissure of the female. Lateral to the rudimental penis, and just below the inferior border of the os pubis the left half of the serotum pre-

sented, well developed, containing a testicle. This constitutes all of the male part of the monstrosity presented to view. And now for the female part: Of this freak of nature, there was not the slightest trace of a labium minora or majora, and of course minus the nymphæ, no clitoris, unless the rudimental penis answered to that organ; no vestibule, but just inferior to the rudimental penis, a slit about one inch in length extending to the perineum, forming a sort of commissure, the slit resembling a neatly-worked button hole; the junction of this commissure with the perineum is slightly dilated representing a button hole after being used a while; in this dilatation opens the urethra, which is in perfect working order. The perineum and alimentary outlet are perfect in structure and function. When standing on the left side of the child, it presents the appearance of a female, but when viewed from the right, it presents that of a male. It is now eight months old and in perfect health.

I. BALINGER.

Otterville, Mo., 1875.

Extracts and Abstracts.

THE MORTALITY OF CHILD-BED.

The following admirable abstract we take from the *British Medical Journal:*

We call attention to the means employed by Dr. Goodell, the professor of diseases of women at the University of Pennsylvania, at the Preston Retreat for the treatment and prevention of puerperal diseases. In many respects, they are novel aud revolutionary; they are, consequently, the better fitted for opening up of the system at present adopted for the management of parturient woman. Time and wider experience will prove whether they are founded on correct principles. The author did not intend to publish until he had completed his one thousand cases. As yet, he has only seven hundred and fifty-six. The mortality was only six; three from puerperal causes. The following extracts from his pamphlet seem to be of sufficient interest to justify reproduction.

The institution contains twenty beds, divided amongst four wards, five in each ward. The cubic capacity is about 1,800 feet for each bed. About one hundred married women are delivered yearly. They are admitted, on an average about sixteen days previously to confinement, and allowed to stay a month; they, however, generally only remained about eighteen days. The air admitted into the rooms is heated in the basement, and ventilation is maintained by a small jet of gas in the old-fashioned fireplace. Outside the hospital, puerperal fever was rife of late years. In Philadelphia and the city of New York, the mortality from puerperal causes (acknowledged as such) has been as high as one in forty-five, amongst all classes alike; if anything, more amongst the wealthier. The wards are used in rotation, one always being kept vacant for about two or three weeks. When a ward is emptied, the doors and windows are kept constantly opened until it is again used; and the whole of the walls, beds, furniture, and floors, are scrubbed down with carbolized soap, and then mopped over with a weak solution of carbolic acid. No water is allowed to be used to the floors until the ward is emptied again. The nurses belonging to the ward go off duty for a week when it is closed, and go through a thorough system of purification. The beds are of straw, which are changed with each patient; the blankets and bedclothes being boiled in water with a small quantity of carbolic acid added. The feathers of the pillows and bolsters are only baked once a year, unless they should become soiled, or have been used by a patient whose convalescence has been retarded. Every woman has a bath at least once a week before delivery. Any indication of enfeebled health is at once treated with quinine, steel, and phosphoric acid. Headaches and sleeplessness are dealt with by warm baths and large doses of bromide of potassium. The bowels are kept relaxed and purged. As soon as labor begins, the patient is placed in a warm bath. The membranes are generally ruptured artificially. The second stage is never allowed to be prolonged, the forceps or vectis being used. The placenta is removed by Credé's method as soon as possible after delivery. The umbilical cord is not tied before it is cut. The blood and gelatin of the cord are "stripped" out as much as can be; and, when bleeding has ceased, it is tied. No binder is placed round the child; nor is the cord touched, but left to lie flaccid and loose on the abdominal walls. It dries up without any smell, and peels off without leaving any raw stump. Out of five hundred infants, not one has had a sore naval or an umbilical hernia.

Ergot is not given as an oxytoxic; but as soon as the head comes to press on the perinæum, a drachm is given. Should the perinæum be torn, it is sewn up at once with silver sutures. A cylindrical compress is applied just about the fundus, and a tight binder applied for twelve hours, when it is removed, and not used again. The patients are confined on a delivery-bed, and wheeled into the ward, and removed to their beds. In not a single instance has flooding ever been caused by this muscular movement; if anything, it has rather tended to excite uterine contraction than otherwise. The next day after delivery, the woman slips out and sits in a chair whilst her

bed is made; this is repeated once or twice a day until the fourth or fifth day, at which time she may get up, dress herself, and do what she likes. No patient is forced to leave her bed; but the force of example is so great, that most do. After-pains are immediately removed by quarter-grain doses of morphia, given every hour until relief is obtained. If they be very obstinate, ten grains of quinine are given every six hours until the ears ring. It is an invaluable remedy in these cases. There are no bed-pans; vaginal injections are employed. Every woman washes herself daily with carbolized soap and a pad of fine oakum. No nurse, except for some special reason, is ever allowed to wash the woman's person. If the lochia be offensive, she is taken out of bed more frequently, and placed on the chair. Should this not succeed, a vaginal injection is then used.

Whenever the lochia are offensive, or the pulse over ninety, or the temperature higher than natural, or there are pelvic pains—in fact, when any untoward symptom appears—quinine is given, from six to ten grains every four hours until the ears ring. In addition, for abdominal pains, large doses of morphia are given, and the whole abdomen is painted with iodine, and a poultice applied over it. The canonical purge is never given. As soon as the patient feels strong enough after getting up, she takes a warm bath.

The reason assigned for not using the bed-pan is, that the recumbent position tends to retain in the utero-vaginal tract the putrescent discharges which are recognized by all authors as a great cause of the autogenetic variety of puerperal diseases. Besides, through the swollen condition of the parts, a putrid clot may be retained in any part of the passages; even injection is not able ordinarily to dislodge it. The exertion necessary, and the position in which the woman places herself, in order to use the ordinary chamber-vessel, are a very effectual remedy to rid the uterus or vagina of any clots and putrescent discharges. Again, slipping into the chair two or three times a day is not only an excellent deodorant, but it enables the bed to be thoroughly aired. This, Dr. Goodell believes, is especially necessary for a lying-in hospital.

The writer hazards the assertion that there is a form of puerperal septicæmia not necessarily accompanied by putrid lochia—at least, not appreciably so—but indicated by a high temperature, rapid pulse, complete anorexia, heavy sweats, and, later, by herpes labialis, which steadily resists treatment until the patient is made to get up. This we have seen several times ourselves, and we can bear witness to the truthfulness of the description, and have found that the only treatment consisted in taking the patient out of bed, when, by the second or third day, the whole of the symptoms disappeared. Examination of the vagina, abdomen, and chest, revealed nothing to account for it. When a recumbent position was strictly enforced during the first five days, we found that not only did the discharges become generally offensive, but in every case there was a rise of temperature, amounting to about one degree, although the pulse was not materially affected. We came to the conclusion that the retention of the fœtid discharges was the cause, and adopted the system of bed-chamber with the best results. The dorsal decubitus, Dr. Goodell, as also do many of the American writers, thinks, tends to a passive congestion of the uterus, and to engorgement of the greatly hypertrophied placenta in particular. The tight binder, continued for some days, is also thought to add to it still more by pressing on the abdominal vessels and retarding the circulation. Milk-fever he ignores, except in the rarest of instances. Purges, he considers, disturb the equilibrium, promote the absorption of septic matter, and act as hæmorrhages do in labor, by increasing the activity of the absorbents. The appearance of septic poisoning on the third or fourth day is no mere coincidence; it is really cause and effect. Two cases the author states that he has seen to be directly due to a purge. Quinine should be always pushed to cinchonism whenever there are any symptoms of septic poisoning. Its power in producing absorption of the uterus, and preventing coagula from becoming detached, is esteemed to be very high.

Dr. Goodell believes that one of the reasons why the statistics of lying-in hospitals can never compete with private practice is, that the former are reliable, the latter not. His experience closely corresponds with Dr. Matthews Duncan's, and with that of all who have taken the trouble to investigate the matter thoroughly. It cannot be too strongly urged that the mortality of child-bed is much higher than what is generally stated, and that the ailments arising from it are of a more serious nature, and more frequent, than most medical practitioners suppose. It is to be hoped that the lying-in charities of London will not always remain the monopoly of nurses and midwives, but will be available for the training of medical students, whose present system of practical instruction is of the poorest description.

NITRITE OF AMYL AND BELLADONNA IN DYSMENORRHŒA.—A paper upon this subject (*N. Y. Med. Record*) was recently read before the New York Journal and Library association by Dr. Mary Putnam Jacobi.

The clinical history of three severe cases of spasmodic dysmenorrhœa were given. They were treated by administering belladonna for several days prior to the recurrence of menstruation, and during the paroxysm, the nitrite of amyl was given by inhalation.

The argument in support of the treatment was considered rational, and was founded upon data furnished by one of the cases observed:

1. Vomiting, pallor, pallor of skin, cold hands and feet.

2. Extraordinary peristaltic action of the intestines.

3. Spasmodic pain in the uterus.

All these points, it was claimed, pointed toward one element—namely, that of spasmodic contraction of the blood vessels.

First, the so-called sympathy between the uterus and the stomach, and between the stomach and brain, were fully considered in their dependence and interdependence with reference to the symptom, *vomiting*.

It was believed, reasoning from the experiments of Schiff and others, that the vomiting of pregnancy, vomiting of sea-sickness, and many cases analogous in character, was due to the same cause, namely, anæmia of the brain, producing spasmodic contraction of blood-vessels at its base.

It was farther argued that anæmia of the intestines produces contractions or increased peristalsis, due to spasmodic contraction of blood-vessels.

There are three conditions in which a hollow muscular organ can contract in the state of vacuity:

1. After direct irritation of its nerves.

2. After direct irritation of its muscular fibre.

3. After changes in its circulation.

A detailed account of six experiments was given. The experiments had been performed upon rabbits. The abdominal cavity was opened, the intestines drawn out and carefully protected in a bag of oil-silk, which was kept immersed in a vessel of warm water; the uterus exposed, and the abdominal aorta exposed. The aorta was then compressed with a ligature, and the result carefully noted.

Several waves of peristalsis ran *down* the rectum, but never in a contrary direction. Contraction of the uterus occurred, and was distinctly visible at the middle third of the organ. Upon removal of the ligature the contractions ceased. The time at which contractions appeared after compression of the aorta was made, also the duration of the contraction after compression had been removed, were carefully noted. The conclusion made from the experiments was, that tonic contractions of the uterus may be excited by occlusion of the aorta, and that such contractions continue from one to four minutes after compression has been removed. Clonic contractions also occurred, after the type of contractions of masses of smooth muscular fibre.

What bearing do the results of these experiments have upon the treatment of spasmodic dysmenorrhœa?

The pain in these cases is dependent upon tonic and clonic contraction of the uterus.

These, in turn, are dependent upon some cause. Of the conditions in which a hollow muscular organ can contract in a state of vacuity, direct irritation of muscular fibre and direct irritation of nerves were excluded. Consequently we are obliged to fall back upon changes in the circulation of the uterine walls. If the change of the blood-vessels passes to an irritation, spasmodic contraction must take place, and uterine contractions will be determined by local anæmia.

Spasmodic contraction of blood-vessels resulting from irritation of vaso-motor nerves, is the cause of the pain of spasmodic dysmenorrhœa. It is upon these considerations that the remedies suggested are used. The *secondary* effect of belladonna is dilatation of the blood-vessels.

Belladonna is to be administered, therefore, previous to the occurrence of menstruation, for the reason that it is desirable to obtain the *secondary* effects of the remedy.

Nitrite of amyl is used for the purpose of relaxing blood-vessels. This is in accordance with the admitted physiological action of the remedy.

This method of treatment, of course, is more especially adapted to cases of spasmodic dysmenorrhœa; but it has been found, both in the experience of the author of the paper, and in that of others, that great relief may be afforded even in those cases in which the dysmenorrhœa depended upon displacements, constriction of the cervix, etc.

The method is, to administer belladonna in ordinary doses for several days previous to the occurrence of the menstrual flow, and when pain comes, to administer by inhalation from two to six drops of the nitrite of amyl, p. r. n. In one case a single drop of amyl was all that was required.

On Hyperidrosis.—The *Gazette des Hôpitaux* (No. 94), of this year, publishes a clinical lecture by M. Hardy on this affection. He insists on its independence, on the one hand, of phthisis and other general diseases; and, on the other, of excessive physiological sweating from exertion. Without going as far as Professor Hebra in maintaining that this (and every other cutaneous malady) should be cured as quickly as possible, without fear of "metastasis" or other supposed mischief, the following advice would probably not be found very different in practice: "May we not fear sick-headaches, tuberculosis, or albuminuria as the result of suppressing excessive sweat? These effects may really ensue, but they are not inevitable. If the subjects of hyperidrosis belong to scrofulous or tubercular families, or have any other hereditary taint, it is prudent to abstain from trying to relieve them. But if they be in good

health, and free from inherited tendency to disease, you need not hesitate, and the cure of your patient's infirmity will not be followed by any ill results." M. Hardy's treatment is that introduced by Hebra (vol. i. pp. 89, 90, New Sydenham Society's Trans.) He discards all internal remedies, and applies diachylon plaster so as to bring it thoroughly into contact with every part of the foot or hand, twisting strips of it round each finger or toe. This is renewed every morning, and before reapplying it the parts are well rubbed with a piece of dry flannel. After keeping the patient in bed under this treatment for ten or twelve days, the plaster is taken off, and he is allowed to go about as usual, except that the stockings should be dusted with some absorbant powder (starch, lycopodium, or asbestos) for a short time afterward. The two cases which follow, exemplify the results of the Vienna treatment:

A waiter in a café, aged thirty-two, perfectly well otherwise, had suffered since childhood from hyperidrosis of the feet. This had been kept at bay by lead lotions, tannin, and lycopodium; but at last, in spite of great attention to cleanliness, the affection became so severe that he could no longer walk. He then became an inmate of St. Louis. The feet were bathed in an abundant and ill-smelling sweat; the soles looked as if they had been soaked in hot water; the furrows were much deepened, and occupied at the bottom by painful fissures, which also existed between the toes. Neither the hands, the armpits, nor any other parts of the body were affected. The treatment above described was adopted, and in a fortnight he was discharged, cured, without any ill-result. He returned to his business as a coffee-house waiter, and has had no return of his troublesome and painful complaint.

The second case was that of a healthy young woman, aged twenty-one, a domestic servant. As long as she could remember, she had been the subject of continual and abundant perspiration of the hands and feet, which was not stopped even in the severest winter, though it was increased by warm weather and by movement. Her father suffered from the same infirmity, but it was limited to his feet. She had been obliged to give up needlework, and various methods of treatment had brought little or no relief. On examination, the secretion was found to be as abundant and of as evil an odor as in the last case, but there were no chaps or fissures, and she was free from pain. Hebra's treatment was first applied to the feet; and within a fortnight there was such improvement that the patient begged that her hands might be also treated. After being two months in hospital, she was so much better that she insisted upon going home, though there was still rather more secretion than normal. Three months afterward, there was no return of the previous condition.—*London Medical Record, Nov.* 11, 1874.—*Monthly Abstract of Medical Science.*

COMBINED ADMINISTRATION, CHIEFLY HYPODERMICALLY, OF CHLORAL, MORPHIA AND ATROPIA.—Prof. Roberts Bartholow, of Cincinnati, read a paper upon this subject before the New York Society of Neurology and Electrology, an abstract of which we take from the New York *Medical Journal:* *

Dr. Bartholow began by stating the desirableness of further knowledge of the reactions which ensue when remedies affecting the nervous system are conjointly administered. He had to offer to the society a condensed summary of the results obtained from the simultaneous administration of chloral, atropia and morphia.

Chloral differs from chloroform, when injected subcutaneously, in the more decided systemic effects, and the less local impression on the sentient nerves of the former. As regards the systemic effects, the action of chloral is very much the same when administered hypodermically as by the stomach. The chief danger is an arrest of the respiratory movements.

Chloral does not exert any chemical action on atropia when the two are held in solution together—for dilatation of the pupil of a cat takes place when the combined solution is instilled into the eye. Dilatation of the pupil also takes place when they are administered hypodermically together.

An apparent antagonism is observed, as regards their action on the heart, when the solutions of chloral and atropia are placed in contact with the heart of a frog, when in position in the chest after division of the medulla, or when the heart is removed. The action of the heart is further found to continue much longer when a lethal dose of chloral is administered together with atropia. In rabbits the same result is produced by the conjoined administration of the two agents.

Atropia is found to prolong the chloral narcosis several hours in rabbits, and diminishes the sensibility to pain.

In man the excitant action of atropia hinders the occurrenc of the chloral narcosis, but rather deepens the sopor, when it at last supervenes. The effects of atropia last much longer, and are apparently in no way prevented by chloral.

Morphia deepens in every way the effects of chloral. The author of the paper found, in the course of some experiments on himself, that many of the unpleasant effects of morphia are modified, as regards the wakefulness caused by the latter, but are not modified as regards the subsequent nausea, vomiting, headache, vertigo, and constipation. When the two agents are administered conjointly, a much less quantity of chloral is necessary in order to produce sleep.

* The paper, in full, can be found in the Cincinnati *Clinic.*

These agents act much more favorably when administered simultaneously. Chloral causes sleep, morphia relieves pain, atropia prevents or lessens the depression in the respiration and cardiac movements caused by the other two, while it contributes to their cerebral effects.

These physiological studies are confirmed by the therapeutical results. The combination of chloral, morphia, and atropia, is adapted to those cases of *insomnia* caused by pain, or in which chloral or morphia alone merely increases the cerebral excitement—as in hypochondria, puerperal mania, etc. This combination is also indicated in cases of fatty and irritable heart. When *pain* is to be relieved, chloral is not so serviceable as the combination with morphia and atropia. The local administration—that is, the insertion of the medicament at the site of pain—is more effective than the merely systemic impression. This is especially the case in tic-douloureux, sciatica, and coccydynia, which are much more effectively treated by injections made in the neighborhood of nerves, the seat of pain. The combination of a local irritant and benumbing agent with a systemic anodyne is more curative than either used singly.

In cases of *muscular spasm*, the author of the paper had obtained excellent results from the combined use of chloral, morphia, and atropia, and he especially called attention to the efficacy of these agents in the *cramps* of *cholera*. Many cases of *spasmodic asthma*, *hay-fever*, etc., have been benefitted by their conjoint administration.

Vulpian's Researches upon Vaso-dilatator Nerves and the Effects of Direct Electrization of the Heart.—At the session of the *Société de Biologie*, of Dec. 19, 1874, M. Vulpian communicated the results of his observations upon those subjects. When the peripheral end of the divided lingual nerve is electrized the anterior two-thirds of the tongue, to which the lingual is distributed, becomes decidedly hyperæmic, as well as the sub-maxillary gland. He has ascertained that the dilatation of the vessels is not due to irritation of the fibers of the lingual nerve proper, but to the excitation of the filements of the chorda tympani, which are combined with those of the lingual. He therefore proposes to enlarge the proposition of Cl. Bernard, and say that the chorda tympani is distributed not only to the sub-maxillary gland, but also to the anterior two-thirds of the tongue; and that its excitation determines a remarkable vascularity in both organs.

A precisely similar effect upon the mucous membrane of the posterior third of the tongue is produced by dividing the glosso-pharyngeal nerve, after its exit from the cranium, and electrizing its peripheral end. That the effect was a direct one, and not due to reflex action was proven by dividing all the neighboring nerves—the lingual, chorda tympani, par vagum and great sympathetic, and the same phenomena were still produced. Although the great hypoglossal was not severed, M. Vulpian thinks there can be no doubt that the action of the glosso-pharyngeal is, in all respects, analogous to that of the chorda tympani.

M. Vulpian found that when one of the reaphoees is placed upon the ventricular mass of the heart of a dog, and a current of electricity is passed of a moderate intensity, a sort of cardiac convulsion immediately occurs—a few irregular contractions followed by total arrest of the heart's action. Whatever is done the movements cannot be caused to reappear—the animal is *dead*.

The experimentor called attention to this fact, because it has been suggested that electrization of the heart by electro-puncture should be essayed in accidents occurring during anæsthesia, and if the same phenomena should occur in men as in the dog, would not this prove among the most perilous of measures? Conclusions from experiments upon dogs cannot be applied to all mammals, particularly to man, for in his experiments upon Guinea pigs the results have been negative only; still it is well to direct the attention of physicians strongly upon this fact.—*Le Progrès Médical*, Dec. 26, 1874.

Dislocation of the Spine with Recovery.—Dr. S. P. Johnson (*Medical and Surgical Reporter*) relates the case of a man who sustained a dislocation of the spine at the junction of the seventh and eighth dorsal vertebræ. The distortion was very great, the spine being bent almost at a right angle, the angle pointing backward.

The writer tried to effect reduction by means of extension and counter-extension produced by two men pulling at the patient's shoulders and two more at his feet, conjoined with strong pressure over the point of injury, but failing in this, he tied a rope around the opposite side of the bedstead and folding a quilt placed it in front of the patient and passed the end back to an assistant to hold as directed, then with three men at each end pulling steadily, the angle being kept about as it was until there was sufficient yielding at the point of dislocation. By coaptation and a gradual loosening of the rope at the fulcrum, the vertebræ were adjusted and the spine assumed its normal position.

The treatment consisted in local and general blood-letting and cathartics. The patient was delirious for the first eight days. That portion of the body below the seat of dislocation was paralyzed until the thirteenth day after receiving the injury, when he could move his toes. Six weeks afterward he could walk with a cane, and in six months was well and working again.

Missouri Clinical Record.

W. A. HARDAWAY, M. D.,
ALEX. B. SHAW, M. D., } Editors.

St. Louis, Mo., - - February, 1875.

Reports of the Proceedings of Societies, Correspondence, Notes and Medical Items are solicited from all parts of the country.

Subscribers are likewise requested to call our attention to notices of marriages and deaths of physicians, and to all other matters of interest to the profession.

A short-hand reporter is regularly engaged upon the RECORD.

We are not responsible for the views of correspondents.

H. F. ZIDER, Publisher,
511 *Pine Street, St. Louis, Mo.*

Editorial.

THE POSSIBLE AND IMPOSSIBLE IN THERAPEUTICS.

Many sanguine minds, moved by a noble enthusiasm, have now and again, from time immemorial, prophesied the advent of a therapeutic utopia; have deceived themselves into the belief that progress, overcoming almost insuperable natural obstacles, would rear upon a sure foundation the science of cure. Often, and until we nearly believed it, have we had this alluring hope pictured to us; and have not all of us, taking note of the impetuous advance of science and civilization, imagined that we saw, near at hand, the looming indications of this glorious epoch? But, alas! philosophic reflection soon dispels our idle dreams, and a calmer appreciation of the limits of human knowledge again shakes our faith in its prospective possibility. The thought, however, that medical science had attained its culmination would in itself be unbearable, and fortunately for the earnest worker. the very nature of things forbids such fears. But there is no medical millenium in store for us—and we will wait vainly for the day when a prescription will have all the certitude of a mathematical computation.

Of course, as a matter of fact, few other than vapory optimists indulge such thoughts but momently, the practical mind despairing of the *tuto, cito et jucundo* in medicine; but, nevertheless, few physicians ever stop to inquire for the dividing line between the possible and impossible in therapy, and year after year, unconsciously moved by this same impulse, add panacea and specific to an already encumbered materia medica.

Deep down in the medical mind, seemingly ineradicable, lurks the legitimate offspring of this utopianism—the idea of specific medication. Many practitioners take no account of the operations of nature in the cure of disease, and it is these men, with their faith in drugs and methods of drugging, who retard most actively the true advance of our art. Trust in the potencies of nature and disregard of the instrumentalities of man, is to them no progress. They look for the perfect and absolute cure of disease to medication, as the chemist observes the neutralization of an alkali by an acid. But they will never see it, this is not among the possibilities of therapeutics.

There are no specifics in medicine, and the brilliant researches of the pathologist, the promised aid of the chemist, and the investigations of the physiologist have given us no clue in this direction, and at best we can only call to our assistance the deductions of a searching, sceptical and rational empiricism. Even the best and surest gifts of science to humanity sometimes fail us; for chloroform, while abolishing sensation, frequently destroys life; vaccination is not always prophylactic against small-pox, and quinine occasionally proves inefficient against malaria. Therefore, then, the impossibilities of therapeutics are that we shall ever discover medicines which will of themselves prove antidotal to disease; and the possibilities are that by the active cultivation of diagnosis, close study of the natural history of maladies and firm reliance upon the *vis medicatrix naturæ*, we will recognize many new diseases, will be enabled to discard many harmful expedients, and in the end indirectly decrease the mortality of the world and add to the sum of human existence. H.

MR. ERICHSEN, the distinguished English surgeon, found much of interest during his recent visit to this country, and, altogether, he leaves us carrying the most agreeable impressions of America, and American surgery in particular, with him. Moreover, we feel assured, from his already published utterances, that he, unlike many of his countrymen, is free from that intolerable spirit of bigotry which repays civility with sarcasm, and whose horizon is bounded by the white cliffs of Albion.

THE *Missouri Dental Journal*, for January, comes to us under the editorial management of Henry S. Chase, M. D., D. D. S., and with the imprint of A. M. Leslie & Co., as publishers. We are sure that this always popular dental magazine will lose nothing under its new auspices, and we are quite certain, from what we know of the ability of its editor and the well-known energy of its publishers, that its future success is more than guaranteed.

THE editor of the *Journal* is still at it. He is evidently trying "*imponere Pelio Ossam*" in the matter of "proof." We dismiss the subject, however, with the consoling thought that he bears no enmities, for *tantæne animis cœlestibus iræ?*

Book Notices and Reviews.

THE DISEASES OF THE STOMACH. Being the third edition of the "Diagnosis and treatment of the varieties of Dyspepsia." Revised and enlarged, by Wilson Fox, M. D., F. R. C. P., F. R. S., Physician Extraordinary to Her Majesty, the Queen, etc. etc., etc., with illustrations. Philadelphia: Henry C. Lea. 1875.

This work is so well known to the profession that a critical review is uncalled for. From its exceeding value it deservedly occupies a high rank among works that treat of the stomach.

The anatomical and pathological conditions found in the various affections considered are uncommonly well described and illustrated. The differentiation of the obscure affections is thoroughly studied and the lines of distinction nicely drawn.

The present edition differs so much from the preceding ones, from the addition of nearly one hundred pages devoted to the consideration of ulcer and cancer of the stomach, etc., that it has much the appearance of a new work.

The busy practitioner, in consulting its pages, will not be wearied with that full and tedious report of "cases coming under the author's *own* observation," so often found in the monographs of to-day.

The remarks on the etiology, symptoms and diagnosis of dyspepsia are unusually well adapted for students, and the numerous references to the opinions and observations of others renders it almost an index to the literature of this department of medicine, and will prove of great utility in pointing the direction in which further investigation on the affections noticed may be prosecuted with advantage.

CLINICAL ASPECTS OF SYPHILITIC NERVOUS AFFECTIONS. By Thomas Buzzard, M. D. Philadelphia; Lindsay and Blakiston, 1874. St. Louis: Gray, Baker & Co., Book and News Co.

This monograph, upon a most important subject, is a model for imitation; it is short, concise, and eminently practical. It is divided into four chapters, treating respectively of the diagnosis, the pathology and morbid anatomy, illustrative cases, and the prognosis and treatment of syphilitic nervous affections.

The first and fourth chapters are of the greatest interest to all practitioners of medicine and render this little volume indispensible to every medical man who makes any claim to be considered well informed.

The illustrative cases are very instructive, some are curious as rare forms of nervous affection. The references to cases where the mind has been affected are not so full as we could wish. However, these omissions, which are to be regretted by the specialist, render the work so much the more readable and interesting to the general practitioner.

Our English cousins have the habit of overlooking America and American writers when they compile books; in other words, they seem to avoid all mention of American observers whenever possible. Dr. Buzzard sins in good company in this respect. We look in vain for a reference to the valuable observations made at the Utica Asylum upon this subject.

W. B. H.

Miscellaneous Notes.

A NEW MEXICAN medical journal has been inaugurated in the city of Guadalajara, in Jalisco.

THE New York *Observer* is the only religious paper in the country which does not directly or indirectly indorse quackery.

MEDICAL GRADUATES.—The Medical colleges of the United States graduated in the year 1874, three thousand students.

SULPHITE OF CALCIUM.—A very common prescription made when there is fear of pyæmia, or when the patient has a coated tongue or fœtid breath, is the *sulphite* of calcium. It is given in doses varying from 2 to 5 grains every three hours. Its effect is highly commended.

GUARANA FOR HEADACHE.—Dr. Jno. C. Van Wyck (*Pacific Med. & Surg. Jour.*) gives a very fair and impartial account of his experience in the treatment of sick-headache, with guarana,

or paullinia soebilis. His observation, although limited, inclines him to place considerable reliance upon this drug in the treatment, without neglecting other indications, of this and allied affections.

CHANGES IN MEDICAL JOURNALS.—The *Medical Record*, it is announced, is hereafter to be issued weekly, and the subscription price raised to five dollars per annum.

The proprietorship of the Boston *Medical and Surgical Journal* has been transferred by Messrs. David Clapp & Son to the present editors, and the *Journal* will be hereafter published by H. O. Houghton & Co., 219 Washington street, Boston.

DR. B. H. WASHINGTON (*Nashville Journal Med. and Surg.*) again calls the attention of the profession to an ingenious surgical appliance of his invention, the stethoscopic probe. He attaches the tube of a flexible stethoscope to an ordinary probe(?) and finds that he can tell with perfect certainty, whether a given obstruction is a leaden ball, fragment of shell, splinter, bone, or bone denuded of periosteum, and in this way, he declares, he is enabled to solve the problem which has defied surgeons for four hundred years.

PHYTOLACEA DECANDRA IN MAMMITIS.—In a paper read before the Northwestern Ohio Medical Association, in December, 1874, Dr. F. W. Firman reports having derived decidedly beneficial results from the administration of the fluid extract of poke root in mammitis. He exhibits it in twenty-drop doses repeated every four hours, beginning its administration as soon as the slightest symptoms of inflammatory action occur, and says he has got to "find a case wherein success has not followed."—*Med. and Surg. Reporter.*

AWARD OF PRIZES BY THE GERMAN EMPRESS.—Four works in the English language, and one in the German, were sent in to compete for the prize offered by the German Empress for the best hand-book on technical war surgery. At the suggestion of the prize judges, it was ordered that the prize of 2,000 thalers should be divided, and 1,000 thalers were awarded to Dr. Frederick Esmarch, professor at Kiel, and 500 thalers each were given to Surgeon-Major G. A. Porter, of England, and to Dr. Joseph Landsberger, of Posen.—*N. Y. Med. Jour.*

PROF. BILLROTH (*Medical and Surgical Reporter,*) recently removed a carcinomatous growth, involving the floor of the mouth and under surface of the tongue, by making an incision down to the bone along the lower margin of the inferior maxilla, extending from the symphysis on either side for about an inch and three quarters; the periosteum was then detached from the posterior surface of the bone; the flap thus formed was drawn down and back, giving free access to the parts involved. He has also, a second time, performed extirpation of the larynx; the patient, however, died in a few days of acute pneumonia.

INSULATION OF BEDS IN THE TREATMENT OF RHEUMATISM.—Dr. P. M. Wagenhals, in a paper read before the Central Ohio Medical Society, claims to have derived great benefit from insulating the beds of patients suffering from rheumatism. He thinks that the duration of the attack is considerably abridged. When suffering from rheumatism himself he noticed that a sensation of drowsiness was produced by use of the insulated bed, and remarks that several patients have made mention of a similar experience.

He only uses the insulation as an adjuvant to the ordinary treatment of this affection. The writer does not propound an explanation of the *modus operandi* by which benefit is derived by insulation, but promises to do so at some future time.—*Medical and Surgical Reporter.*

EXTRAORDINARY LONGEVITY.—The Philadelphia *Evening Bulletin*, of October 1, 1874, contains an obituary notice of George Labar, who died September 26th, in Monroe county, Pennsylvania. According to the *Bulletin*, he was born in the autumn of 1763, in Mount Bethel, now Portland, Northumberland county, Pennsylvania, where his baptismal register is still preserved. He was of French descent, his grandfather having been a fugitive from religious persecution. His father lived to the age of one hundred and five years. In 1870 he had a brother living who was ninety-eight years of age, one sister aged eighty-six, and another aged ninety-two years. He had lived an active out-door life, and had known very little sickness. He used tobacco very freely all his life, both smoking and chewing, but was very moderate in the use of alcoholic liquors. As there seems no reason to doubt the accuracy of the statements given, this is one of the most extraordinary cases of longevity on record.—*N. Y. Med. Journal.*

A CANINE SURGEON.—An interesting instance of sagacity has been recorded by a correspondent of the Philadelphia *Medical Times*. A large dog of the St. Bernard and New Foundland breed, called "Carlo," had been brought up with a cat, and the two became great friends. The cat had the misfortune to swallow a needle and thread which had got mixed up with some minced-meat prepared for its food. The cat suffered intensely. The dog, after some apparent deliberation, fixed upon a spot in the cat's neck, and commenced

to lick it, which operation it continued to perform very assiduously for the better part of two days, his feline friend aiding him by keeping its head on one side. All at once the dog got much excited, and was seen to be anxiously striving to catch something between its teeth. The animal succeeded at last, by a sudden jerk, in seizing the point of the needle, and drawing it through the skin and fur; but it still hung by the thread, which was divided by the daughter of the dog's master. The dog subsequently, after greeting the return of its master's son, immediately went to the place where the needle and thread had been thrown. Dr. Benjamin Lee, who relates the circumstance, says that he has been at the pains to verify the facts, and to do himself the pleasure of shaking "Carlo's" paw, and giving him the salutation of a *confrere.—London Lancet.—Med. Examiner.*

AGE IN RELATION TO CHILD-BEARING.—At a late meeting (Nov. 20) of the New York Library and Journal association, Dr. Fordyce Barker (*Medical Record*, Dec. 15, 1874) read an interesting paper on this subject.

The conclusion at which he arrives is that the laws of physiology, the experience of mankind, and decisions of the courts will justify the medical witness in declaring that a woman over fifty-five years of age is past the period of child-bearing.

MENSTRUATION AND OVULATION.—In the discussion which followed the reading of the above-mentioned paper, the relation of menstruation to ovulation was questioned. Dr. Barker replied that menstruation and ovulation were most frequently coincident, but they do not necessarily bear the relation to each other of cause and effect (without entering upon theories): 1, because the one may exist without the other, as proven by numerous well-authenticated cases; 2, cicatrices have been found in ovaries, indicating rupture of Graafian vesicles, many years previous to the appearance of menstruation; and have also been found in old women (fresh cicatrices) after menstruation had ceased for a long time; 3, we now have eight well-authenticated cases in which women have menstruated and continued to menstruate after both ovaries were removed, rendering ovulation impossible. This, to him, was conclusive evidence that menstruation or monthly sanguineous flow is not dependent upon ovulation.

MEDICAL STUDENTS IN EUROPE.—Time was when medical students in the United States were considered a disorderly and somewhat lawless set of fellows. Especially was this the case in Philadelphia, when that city was the principal center of medical education. "Virginia students" were supposed to take the lead in mischief and so gave character to the whole class. But this was fifty years ago, and things have changed since that time. Take them all in all, medical students are as orderly and well behaved as any class of young men in the country, not excepting students of theology. Rebellion against the authority of the professors is almost unheard of at our medical colleges. In exemplary deportment the students of literary institutions do not approach those of medical schools in this respect. But a European student of medicine is a different character altogether. Disorderly and riotous demonstrations are almost the rule in the European lecture room. At the opening of the session, or at any time when a professor is so unfortunate as to give offense, and this is easily done, the students are in the habit of exhibiting their disapprobation, sometimes to the extent of driving the lecturer from his desk. They have done so recently in Paris in the case of M. Chauffard, whose offense appears to have been that he was the protegé of the clergy. In fact it was necessary to close the school in consequence. In the great German schools they behave no better. Even in Great Britain, especially in Edinburgh, the students are not devoid of rudeness in the lecture room, though their deportment is far superior to that observed in the French and German schools. We claim for the medical students of America in general, a degree of respect for themselves and their preceptors not to be found across the Atlantic—at any rate not beyond the British channel. American students may learn many things by going to Europe, but they are not likely to learn good manners or good morals.—*Pacific Journal.*

ERICHSEN ON AMERICAN SURGERY.—The following extracts will give some idea of the impressions gained by Mr. Erichsen during his visit to the United States:

Surgery in the United States certainly stands at a very high level of excellence. The hospital surgeons throughout the country have struck me as being alike practical, progressive, and learned in a very high degree. In practical skill, and aptitude for mechanical appliances of all kinds, they are certainly excelled by no class of practitioners in any country. They are thoroughly up to modern surgery in its most progressive forms, and I have never met with any class of men who are so well read and so perfectly acquainted with all that is done in their profession outside their own country. It would be a great injustice to American surgeons for it to be supposed that surgical skill is confined to the large cities, or to the few. On the contrary, I know no country in which, so far as it is possible to judge from the contemporary medical literature, there is so widely diffused a high standard of opera-

tive skill, as in the country districts and more remote provinces of the United States. The bent of the mind of the American surgeon is, like ours, practical rather than scientific; in fact, there are the same mental characteristics displayed in him that we find here; the same self-reliance, the same practical aptitude, the same *curative* instinct, which leads him to consider his patient rather as a human being to be rescued from the effects of disease or injury, than as a scientifie object to be studied for the advance of professional knowledge. How, indeed, can it be otherwise than that there should be such a resemblance?

I have thus given you a very brief sketch of some of the impressions that I formed of our profession during my recent visit to America, and in so doing I have purposely, as far as possible, omitted mentioning the names of American surgeons, because I felt that there are so many so highly distinguished that it would be invidious and perhaps unjust to make a selection of a few among the juniors, and among the seniors it would be needless to name to you such men as that Nestor of American surgery, Gross, or of Pancoast, of Philadeldelphia; of Van Buren, Wood, Parker, or Sayre, of New York; Bigelow or Hodges, of Boston; Smith or Johnston, of Baltimore. I can only say that the surgical profession in America contains a phalanx of men alike distinguished for their skill and their knowledge, at least equaling what any European country can produce. And, in conclusion, I would advise those among you who wish to see and study the practice of surgery elsewhere than in the school in which you have been brought up in this country, who are not content throughout their lives, *jurare in verba magistri*, to run in the one professional groove in which they have been launched, but who unfortunately have not acquired that fluency of the speech of Germany or of France that would render a residence in those countries profitable for the purposes of study, to take a trip across the Atlantic—a voyage in itself interesting, amusing and health-giving—and to spend a few months in visiting the great hospitals and schools in the cities of the United States of America.

PROGRESSIVE PERNICIOUS ANÆMIA.—Under this name, Biermer has recently collected fifteen cases of a peculiar disease which does not appear to have been previously placed in any pathological system. The most prominent symptom of the disease is an increasing paleness of the integumentary surfaces, together with the usual phenomena of anæmia. The anæmia increases, and the patients, almost without exception, soon die. The *post-mortem* section reveals an extraordinary scarcity of blood in all parts of the body, though there is no corresponding loss of fat tissue, or other sign of emaciation.

This form of anæmia differs from others in —1. The absence of any sufficient etiological cause. 2. The extraordinary degree of blood-impoverishment and the connection of the anæmic symptoms with certain changes in the circulatory apparatus. 3. The appearance of febrile movements which have no anatomical basis. The progressive character of the anæmia and its extremely malignant course, which cannot, generally, be checked by therapeutical means. Evidently this disease does not occur frequently, or it would have been described before. The greater number of cases appear to have occurred in Zurich and Basle, Switzerland. Most of the patients were women between twenty and forty years of age, and pregnancy appears to have had some connection with its cause. In other cases, in both sexes, the development of the disease appears to be more dependent on bad living, troubles of digestion, diarrhœa, etc. From the extreme degree of the anæmia, with the very slight atrophy and emaciation, it would seem that the probable cause of the disease is of such a nature as to exert a very considerable effect on the blood-formation, while it affects but slightly the other functions of the organism.

Gusserow's observations have shown that transfusion is of no use in these cases. Only one of Biermer's cases left the hospital somewhat improved; the others died, as was also the case with the five pregnant women mentioned by Gusserow. In severe symptomatic anæmia, on the contrary, the patients usually recover with proper treatment. Biermer and Gusserow did not find the contracted condition of the aortic system which is common in anæmia. The blood is pale, thin, and but slightly coagulable. In one case Ponfick found an almost entire absence of fibrine. Œdema becomes marked toward the close of the disease. The red blood-corpuscles were diminished in number; the number of the white blood-corpuscles was usually, though not always, increased. The spleen, lymphatic glands, and marrow of the bones, were unaffected. Biermer almost constantly found the pulse weakened and undulating, with a high systolic secondary sound of the heart and in the large vessels, although no valvular leision was found in the *post mortems*. An hæmorrhagic diathesis was usually developed early, with bleeding from the nose and gums, and sometimes extravasations under the skin and small cerebral hæmorrhages. In all of Biermer's and in one of Immermann's cases there were retinal hæmorrhages, but these did not in all cases cause disturbance of vision. The changes in the circulatory apparatus consisted in a partial fatty degeneration of muscular tissue of the heart. There was also fatty degeneration of the renal epithelium, hepatic cells, and the

gastric glands. The fever seldom reaches a high degree, is varying, and frequently there are intermissions of considerable length. Treatment does not seem to be of any use.—Immermann in *Archiv f. klin. Med.*, and *Tegeskrift f. Laeger*, July, 1874.—*N. Y. Med. Journal.*

THE DUTY OF VIVISECTION.—We hold vivisection to be a duty binding on those who seek to solve the problems of life, and can not be shirked by them. Duty to humanity requires that animals should be sacrificed in large numbers, not only by original investigators, but by teachers who want to understand and impart a knowledge of what has been investigated.

Taking this view, we do not *defend* vivisection any more than we defend the duty of loving our neighbor; of telling the truth; of abstaining from theft, arson, and murder; of improving our precious time, or, in general, of leading a life of virtue. We should as soon think of defending a politician for being honest, as of defending a physiologist for experimenting on living animals. To be the attacking party is to be half victorious. We hold that scientists should no longer defend vivisection—they should require it. Our faith in legislation as a cure for all human woe is not strong; but, if any appeal must be made to law, let it be enacted that no medical student shall receive his diploma until he has gone through a course of vivisection, and be it further enacted that all ownerless cats and dogs shall be impounded in the laboratory.

As we write these lines, a rabbit, on whom we have made many physiological experiments, and which has become thoroughly tamed, so as to be a household pet, is munching and playing on our desk. It rests its nose on the manuscript, covering the freshly-written lines with ugly blots, and then hops to the other end of the desk, upsetting bottles and scattering papers over the floor. To this rabbit we have become not a little attached, and when it dies we shall lose a friend that has forgiven long ago the slight pain that we ever inflicted upon it.

The practice of vivisection does not of necessity harden the heart. One may love an animal so deeply that, out of the very depth of that affection, he may honor it by offering it up on the altar of science. We eat meat to sustain life, and we vivisect animals to sustain science, and neither eating nor vivisecting make us cruel. The fact that dogs and cats may be the instruments of advancing knowledge adds a new dignity to animalhood, and brings it nearer to humanhood.

When the devil has any specially wicked purpose to perform in this world, he often selects some well-meaning, narrow-brained man who has been of service to the world in some one thing, and therefore thinks that he can be of service to it in everything.

What to do with those who conscientiously oppose vivisection is a hard question. Active, direct opposition does no good, and should only be employed when they try to oppress us through law, when they seek to organize scientific persecution. Having never been reasoned into their views, they will never be reasoned out of them. We can trust to the slow improvement of the race, the gradual enlightenment of humanity, to do away with this class of beings who, standing midway between barbarians and Christians, retain much of the ignorance and superstition of barbarians, without having gained enough of Christianity and civilization to make them reasonable, just, or gentlemanly. One thing is sure: men of this stamp must go down, or civilization must go down, for they are antagonistic. The world can advance only at the expense of these ignorant, half-sided, under-done natures, that are, in certain stages, the worst enemies of progress.

The conscientious opponents of vivisection belong to the same class as the radical temperance reformers, and are to be treated in the same way—by indirect rather than by direct attack; by instructing and elevating the people, so that they may cast off these sloughs that were needed at one stage of the process of cure, but are now in the way.—*Journal of Electrol. and Neurol.*

PARASITIC ORIGIN OF DISEASE.—The London *Medical Times and Gazette* contains a notice of a recent work on this topic by Dr. Déclat.

His doctrine is very clearly given in the form of introduction, which is to the effect that all diseases are due to the development, *in* or *on* the body of man and animals, of animalcules that are microscopic or visible to the naked eye—that is, parasites—bearing an absolute resemblance to the ferments that disorganize organic matter. This theory, as applied to certain diseases, is, according to Dr. Déclat, founded on direct observation; to others, on striking analogies, and on all the other medical doctrines that have remained unexplained save by the parasitic theory. Parasitism, he adds, explains contagion, miasmatic influence, the action of viruses, etc. The ferment germs, floating in the air or placed in contact, in certain conditions, with our organism, are developed in it and alter its functions. Such, according to Dr. Déclat, is the origin of epidemic, endemic, or sporadic diseases. The first are due to the invasion of animalcules wide-spread in the atmosphere, like the myriades of inoffensive flies, which, in the spring of 1872, so infested Paris, or like the clouds of locusts that are sometimes observed in Algeria. Endemic diseases, intermittent fevers, yellow fever, etc., are to be traced to putrid fermentation, from which they derive

their living germs, the parasites, which are unanimously acknowledged by scientific men to be the cause of these affections. As for sporadic maladies, Dr. Déclat remarks that these do not prevail equally as regards time, place, and seasons; and the proof that they also are of parasitic origin, is, that many animals and vegetables are generated and developed at certain determined periods and places. This theory being admitted, the period of incubation, which precedes the appearance of disease, may be thus explained; as the germ or morbific ferment introduced into the system requires a certain time to reach the active phasis of its existence, so the duration of the stage of incubation varies according to the species to which the parasite belongs. In the same way is the duration of the incubation of the eggs of different oviparous animals variable. Moreover, the development that follows incubation is more or less rapid; hence we have acute and chronic affections.—*Medical and Surgical Journal.*

METHOD OF REPAIRING REGISTERING THERMOMETERS.—It may be of service to our readers to know how to repair their thermometers, and therefore we publish the following suggestions on the subject, copied from the Boston *Medical Journal:*

The first method is to apply gentle heat to the bottom of the thermometer until the mercury rises to an expansion at the top of the glass. Permitting a little to enter this expansion, a sharp quick blow on the top breaks the column in a number of places. Shaking all down into the lower bulb, a little remains at the top to form the needle; this is forced out by heat, and partially shaken down, when the instrument is again serviceable.

In the second method, the bulb is cooled till a small space is visible above the mercury; then the instrument is quickly inverted and held perpendicularly between the thumb and finger. In this position a sharp blow is struck, ramrod fashion, upon a thick, flat, rubber eraser, laid upon a table. A minute portion of the mercury will so be thrown past the empty space into the tube, and may serve as an index.—*Nashville Journal of Medicine and Surgery.*

CURABILITY OF SYPHILIS.—It is my firm conviction (indeed, I never doubted the fact,) that syphilis is absolutely curable; that it is not a life-long disease, as some have maintained. It is generally admitted that, so long as a person is suffering from secondary syphilis, he is incapable of contracting an indurated sore, or any further constitutional infection. If, then, cases are met with in which, after a lapse of time, patients do contract a second indurated sore, followed in due course by a secondary general infection, they afford strong proof that the first attack has been radically cured. This is the view now entertained by Ricord, whose long experience has shown him many such cases. It is corroborated by the cases recently brought before the Royal Medical and Chirurgical Society by my colleague, Mr. Gascoyen, and I have myself seen repeated instances of the same thing. The curability of syphilis is also further evidenced by the number of persons, young men especially, who have suffered from it, and who afterwards marry and have perfectly healthy families.—Lane, in the *British Medical Journal*, Dec. 12, 1874.

WEIGHT AND HEIGHT OF AMERICANS.—According to a recent work of Mr. B. A. Gould, Actuary to the United States Sanitary Commission, in which some very interesting figures relative to soldiers in the last war are given, it appears that the American nation, instead of being degenerate and inferior to the European race in point of physical perfection, is far the reverse. The figures adduced show that "the tallest men were from Michigan, Illinois and Wisconsin; the next tallest, New England, New York, New Jersey; and the shortest from Scotland, England, Germany." In weight, the men of Kentucky and Tennessee were the heaviest, averaging 150 pounds; England Scotland, France, Belgium, all between 138 and 139 pounds. The ratio of weight to stature gave in pounds to the inch: Ohio and other western States, 2.185; New England, 2.131; England and Scotland, 2.118; Germany, 2.168.—*Medical and Surgical Reporter.*

TUBERCULOSIS NOT INOCULABLE.—In a late communication to the Academy of Sciences of Paris, M. Metzquer tried to upset Villemin's doctrine. For the last five years the author has made experiments (from seventy to eighty) under the direction of Prof. Feltz, of the Faculty of Nancy. He never succeeded in inducing pulmonary consumption in the inoculated animals. The results were capillary embolism, infarctus, vesicular pneumonia, etc., all of which lesions have (the author maintains) been confounded with tubercle. Tuberculesis may, however, be generated in animals (says M. Metzquer) without inoculation of tubercular matter, by rough treatment, bad food, and, strange to say, by inflicting a wound upon them.—*London Lancet.*

A PHYSICIAN at North Guilford, Conn., recently attempted to collect a bill of fifty dollars for professional services, when it was offset by a formidable bill for dinners, horse baitings, presents of milk, fruit and vegetables, all of which had been tendered ostensibly out of good will. Strange to say, the patient's offset was held valid in a New Haven court, and the doctor had to pay seven dollars to get square.—*Medical and Surgical Reporter.*

Original Communications.

*IS ALCOHOL FOOD?**

BY. C. H. HUGHES, M. D., ST. LOUIS, MO.

"The prayer of Ajax was for light."

The physician should never argue for victory in debate, but only for the light of truth.

I have listened attentively to the arguments of gentlemen on this subject, since the opening of the discussion, in the beginning of which I ventured the assertion that this agent is not food.

I have anxiously sought for light, which might reveal the error of the position briefly expressed by myself and more ably maintained by my colleagues, but the advocates of the food theory of alcohol have not given us that degree of illumination, which might reasonably be deemed conclusive of their position.

We have asked for bread. They have given us a stone, or at most, they have offered us but crumbs, which may or may not, as investigation progresses, and time advances, be found to be possessed of nutrition.

Those who are unwilling to admit that alcohol is a nutrient of the economy, have a right to demand of their opponents something more than conjecture based simply upon chemical possibility, before adopting the idea that alcohol is a reconstructive of the tissues of the body. Before yielding our position we must have demonstrated and demonstrable facts. True, alcohol is a hydro-carbon, but not every hydro-carbon is assimilable. Turpentine is a hydro-carbon, but we do not call it a food. Petroleum is a non-assimilable hydro-carbon and time need not be occupied in naming other non-assimilable hydro-carbons, incapable of forming food. The question to be proven, to establish that alcohol is food, is its assimilability, not its chemical composition. The chemical composition of the three isomeric states of phosphorus is the same. The analogy of alcohol to sugar, starch, and fat is not a demonstration. These agents are not identical, but simply similar in chemical composition. And if they were exactly identical in chemical composition the possible probable chemical allotropism, as well within as without the system, should be considered, before aiming at an irrevocable conclusion as to the behavior of these agents in the economy. There may be an oxygen and an ozone in the chemistry of the body and as many states of carbon in animate as in inanimate nature, and the latter may serve as many different purposes in the human organism as in the arts. These conjectures are entitled to as much weight as the chemical supposition upon which alcohol is believed by some to be a food.

It may be admitted that alcohol, as it exists in some of the spirituous beverages, may act as a condiment, appetizer, or gentle stimulator of the gastric secretion. It doubtless does act in this way, in certain debilitated states of the stomach, and also as a stimulant in depressed states of the general system. Universal experience for centuries can hardly have been altogether at fault in regard to the value of a "little wine for the stomach's sake and oft infirmities" of certain debilitated and dyspeptic persons, and the judicious practitioner of to-day would not feel himself justified in ignoring the sound advice of the Apostle Paul, with certain judicious persons, as we suppose Timothy to have been, who would not suffer themselves to continue the prescription long after the medical necessity had ceased. Paul lived eighteen centuries ago and is generally considered to have been pretty sound on spiritual subjects. The fact that beer, and ale, and porter, and all fermented and distilled liquors may, in the hands of the skilled physician, be made to subserve the purposes of digestion and thus act as adjuvants to nutrition, (which must be admitted as a fact of experience), does not demonstrate that alcohol, which is the silent partner of them all, is food.

Alcohol may possibly be, some day, demonstrated to be food, of a peculiar kind, acting in a manner different from all other food in the reconstruction of tissue, and this is what some have tried, but, thus far, failed to establish. The ablest advocates of alcohol being a food, are compelled to admit that we can not tell how it becomes food.

The fact that all the alcohol taken into the system can not be found in the excretions, does not establish its appropriation by the tissues, and is not so conclusive a presumption that alcohol is food, as the presumption that it is *not* food, founded upon the opposite and unde-

* Remarks before Medical Society, Dec. 19, 1874.

niable fact that it does pass out of the system *as alcohol*, and is found after death in the ventricles of the brain and tissues of the body in an unchanged state, and that it actually combines with and changes the normal quality of the cerebral mass during life, as it is capable of acting upon the brain of the cadaver.

If it can be shown beyond all doubt, which has not been yet so indubitably established, that alcohol is found in the urine of those who never took it in any form, this would only prove that alcohol may, in exceptional instances, be found as an *excretory* product of the retrograde metamorphosis of the body, and the more logical deduction from this fact would be, that alcohol is not a reconstructive of tissue. Alcohol is not a normal component of grain, though we obtain it from the cereals by destructive distillation. The components of the living organism are not generally found as having undergone no retrograde change before excretion. The combination of elements made in the laboratory of the system are hidden from our view, and we can not locate the origin of a salt or other chemical compound found in the urine. A phosphate, for example, may come unchanged from the bony system, or it may originate, in whole or in part, elsewhere in the economy.

Alcohol, like water, passes unchanged through the system, but the latter is known to be a natural and indispensible constituent of the tissues of the body. The fact that water passes out of the system daily in about the same quantity in which it enters and yet serves a most important purpose of nutrition, while alcohol does not all pass out as it enters, yet seems to serve no purpose in healthy alimentation, is a riddle which can not be as yet solved with satisfaction to the logically scientific mind by saying that what does not come away as alcohol is appropriated by the organism for purposes of reconstruction. Mercury, lead, madder, and other agents are retained in the system. We may prove the instability of alcohol as a chemical compound, and yet not be able to demonstrate its reconstructing affinities.

The argument which convinces some men that alcohol is food is, that some men increase in flesh under its use; but some men grow fat on iodide of potassium, too! The fact that the fat of most drinkers of alcohol is "slushy," as one of the "alcohol-as-food" advocates admitted last Saturday, is sought to be explained by the supposition that the parties take too much.

This hypothetical retreat wont do. Here is a dilemma from which they can not extricate themselves by an hypothesis. The hypothesis is not tenable by analogy, for overfeeding with ordinary food does not act that way.

It is not true that men generally grow fat on alcohol. While some become bloated and acquire a kind of obesity and others appear for a time to increase in normal flesh, many men lose flesh on the regular use of spirituous or malt beverages, while others gain in flesh and healthfulness on leaving off drink. I doubt if one can increase in weight by diminishing their daily food and supplying the deficiency with alcohol. Dr. Hammonds experiments are not conclusive unless it were demonstrated that he remained awake as long and did the same amount of mental and physical labor during as before resorting to the experiment. The presence of so much alcohol in the blood may have carbonized the blood to such an extent as to have exercised a sedative influence upon the emotional and reflective activity of his brain, and thus diminished the accustomed demand for reconstructive material there. *Ubi irritatio ibi fluxus.*

It is in this manner that I conceive that men of active temperaments may increase in weight under the regular use of alcoholic beverages. More men have been known to increase in weight upon increasing their daily potations of water than upon increasing their grog.

Alcohol, except in very small and frequently repeated doses, or except when administered during great activity of the brain and in quantities not sufficient to overcome the resistance of the brain to this foreign body present in the blood, is a sedative. If it succeeds in making a man of active temperament less active in his habits, and thus in diminishing the demand for blood in the brain cells, without impairing the digestive powers, of course the surplus nutrition will be deposited in the fat tissues, which are the reservoirs of unappropriated nutrition.

But this fat is still made from the food and is stored away in these cases at the expense of the brain. Had the habits of the individual not changed some of it, this nutrition would have gone to form nerve and brain elements,

now no longer demanded, and this fat diminishes when the active habits are resumed.

Alcohol being an unstable compound, and passing readily into the circulation, when diluted largely with water, and being a hydrocarbon, may help to supplant the natural oxidation going on in the system, and, bearing this fact in mind we may, in certain debilitated states of the system, when the retrograde processes are in the ascendancy over the reconstructive, employ it therapeutically to advantage to our patients, until the proper equilibrium in the waste and repair is established through improvement of the nutrition and assimilation.

But this is the *therapeutic* property of alcohol, not its *nutrient* property, and it might, under these circumstances, be said, indirectly, to subserve the same end as food, though it can not therefore be justly classed as food, any more than could an abundance of rich and substantial food be classed as sleep, because it saves the wear and tear of the system, to some extent, from loss of sleep, and enables the system to hold up longer without the latter.

A food is a substance which, in whole or in part, enters into and becomes a part of the normal constitution of the tissues, and promotes the progressive as well as the retrograde metamorphoses of tissue essential to normal tissue vitality.

Alcohol may, *therapeutically*, subserve the purposes of food under certain *abnormal* circumstances of the system, either by *retarding retrograde metamorphosis*, and permitting recuperation to become established, or, given in small doses, and acting as a moderate irritant or stimulant, by increasing the digestion and assimilation of food, but alcohol is not itself a direct food as we understand the definition of the term.

If there be a system of trophic nerves presiding over the nutrition of the body, as maintained by Samuel,* we may safely admit, from the facts of experience, that alcohol possesses the power of stimulating this system of nerves, or the cerebro-spinal nerves, which preside over assimilation, whether there be or be not a special system of exclusively trophic nerves, so as primarily to increase the activity of nutritive appropriation. This property of alcohol will make lean men who take it fat, if they feed well at the same time, and do not too long continue the alcohol, to the point of nervous enervation, and, provided, that the nutrient and the alcohol are taken into the system at about the same time, so that the trophic, or nutrient nerves, while being acted upon by alcohol will not expend their increased activity fruitlessly to the system.

A food does not enter into chemical composition with the tissues to form a compound incapable of growth, as alcohol combines with the albumenoid structures, the brain, nerves, etc., changing their structure and impairing their functions. Whenever alcohol is found in the tissue, it is found in connection with abnormal tissue change.

A food, properly speaking, is reconstructive of tissue with correlative retrograde metamorphoses as a natural result of expended vitality in the cells of the tissue which it forms. It is claimed for alcohol that it arrests the retrograde metamorphosis of tissue; this does not prove it to be a food, but the contrary. No one would think of recommending the daily employment of an agent which arrests the natural disintegration of the system, as a proper food for the economy.

To promote health we encourage disintegration up to the natural standard and never favor arresting it. Mental and physical exercise and food do this. Alcohol in anything but very limited quantities—quantities insufficient to exert its proper effect in the system—interferes with and reverses this natural process. How then can it properly be classed as food, to be administered regularly to the system in health. In certain abnormal states of the system, employed judiciously, it may temporarily subserve the purpose of food by arresting waste, which would not be repaired, but this arrest of the waste of the system could not be long maintained except at the expense of vitality.

We class no other agent as food which it is only proper to introduce into the system when the latter is in a state of disease.

If alcohol be a food, no other known food acts like it.

Alcohol, according to the recent experiments of Parkes, first increases the pulse and temperature, then diminishes them below the natural standard. The first effect is due to its primary or irritant action. Food does not diminish the pulse.

*Die Trophischen Nerven von Dr. Med. S. Samuel, Leipsic, 1860.

Alcohol, taken on an empty stomach, does not actually increase the temperature, but lowers it in the rectum.

Food will maintain and increase the heat of the body uncombined with alcohol.

The phraseology of Liebig, "respiratory food," as applied to alcohol and the non-nitrogenized substances, should be adopted with cautious restrictions. I do not believe that food of any kind is introduced into the system for the sole purpose of subserving respiration, though no one at this day doubts that certain articles may subserve, more than others, the purpose of developing heat, and it is a fact beyond disproof and too well established to require dwelling upon here, that the venous blood which carries a portion of the retrograde excretory product or debris of the system to the lungs, furnishes carbon sufficient for the respiratory process, whether the animal feeds on nitrogenized or non-nitrogenized aliment, an agent which, according to some advocates of the food theory (Hammond Davis) diminished the pulmonary exhalation of carbonic acid gas, and lessens the natural fœcal, urinary and other excretions, can not, in our view, be logically classed as a nutrient. All nutrients known to us, act in a contrary manner.

An agent which can not safely be taken on an empty stomach, does not obey the law of foods, in general, for it is the empty stomach that demands them.

Alcohol may become respiratory *poison* rather than respiratory food in a healthy man by preventing the burning off of their carbonaceous products of decomposition destined for elimination by the lungs.

The testimony of Dr. Kane in the Arctic regions is not favorable to the notion that alcohol is either a respiratory food or heat-producing agent with healthy men, capable of digesting substantial food in quantities sufficient to sustain the system.

We have already said, similarity of chemical composition does not warrant the classification of alcohol with sugar, fat, starch, etc. Nutrient agents might even be as identical in chemical composition as the diamond, plumbago and charcoal in the mineral kingdom, and yet subserve as different purposes in the animal economy as the latter do in the arts. Alcohol may be isomeric of many nutrients, and yet not serve the same purpose in the economy.

There are more things in the chemistry of organic assimilation than are yet demonstrated, or than may ever be demonstrable, by our present methods of physiological research, and we should not be over hasty in arriving at definite conclusions respecting the place of alcohol in our dietary.

That it is entitled to a prominent place in our *materia medica*, all experience demonstrates, and, like all patent medicines with which we are familiar, it may kill or cure, I am equally well convinced.

But I know of no food which, taken regularly in connection with other food, as alcohol is often taken by moderate drinkers, is capable of diminishing the power of resistance to disease, as alcohol does. An ample diet usually acts the reverse of this. All experience demonstrates that the regular drinker, although he may never drink daily to intoxication, does not possess either the immunity from disease, nor the power of resistance against violent acute disease, as the man does who abstains from alcohol as a part of his regular food.

I know of no food which is capable of leaving its impress upon the organism as alcohol does, in shattered nerves, impaired brains, diseased arteries and viscera, "fatty and atheromatous degenerations and chronic interstitial inflammatory deposits."

I know of no food which is capable of engendering paralysis, epilepsy, mania and dementia, and that peculiar disease called chronic alcoholism.

The consequences of gluttony are unlike those of the excessive use of alcohol, and scurvy can not be attributed to any one article of diet.

We trace no such evil consequences as epilepsy, idiocy, imbecility, and the other neuroses in children, to either the moderate or excessive use of any recognized food, as we trace to the use of alcohol in parents, even when the latter have apparently resisted the effects of the poison in their own persons and died at an advanced age. The testimony of the insane asylums, the inebriate asylums, and the institutions for the idiotic and feeble-minded all over the world, is against the assumption that alcohol is a true food.

The practical experience of the profession the world over is against this assumption for alcohol. The weight of authority is against it,

though here and there a writer appears who maintains for alcohol as a nutrient. Universal experience is against it, notwithstanding the fact that it is almost universally used, and bodies politic are asking the question seriously what is to be done to get rid of this so-called food? The nations whose people drink it in the form of light wines and beer, suffer less than those whose people use the brandies, whiskies, and gins, but all suffer who use it in quantities sufficient to exert its specific influence upon the brain and nervous systems. Alcohol almost invariably sinks in quantities insufficient to effect the child's life through the placenta. It deranges the hepatic function, and the cirrhotic liver is the legitimate penalty of excessive indulgence. I am familiar with those whose brains do not suffer, whose children never deliver the inevitable injury.

In attempting to confront these facts of experience, during which I could accept conclusions at variance with them, I do so with the utmost caution.

Grave consequences to the race depend upon the decision which science may make respecting this agent. As physicians and devotees of all true science, we must seek the "the truth, the whole truth, and nothing but the truth." Let us then be wary as to how we permit conjectures as to possible but undemonstrable chemical changes to find lodgment in our minds as probable or established facts and lead us to throw around this iconoclast of so many hearthstones a pseudo-scientific mantle to protect it from the just assaults of an alarmed and aroused philanthropy.

If we are compelled in the progress of investigation, which, however, is not now, to class it among the aliments—let us be careful that it be so classified with every restriction and qualification which its peculiar properties may require.

At present I think we can not answer the question propounded through Dr. Pallen, namely, "Is alcohol food?" except negatively or qualifiedly by saying it may subserve the purposes of aliment in certain abnormal states of the system.

NIGHT TERRORS.

BY WM. B. HAZARD, M. D. (*Bellevue.*)

The night terrors of children are recognized by writers upon the diseases of childhood, but their significance has, perhaps, not been so well appreciated as it should be by practitioners. The object of the present essay is to indicate the causes, prophylaxis and treatment of a truly distressing affection, and also its right to a place among the well known neuroses.

Some hours, generally two or three, after he has gone to sleep—in apparent health—a child suddenly awakes, or seems to awake, uttering loud cries. He appears frightened, fixes his eyes upon some object, real or imaginary, from which he seems to try to escape. The limbs are more or less agitated, he does not recognize those about him and does not remember the incidents connected with the attack after it has passed away, which occurs in from five to ten minutes. During the attack the child may perform such acts as he may be directed to do, and answer simple questions when strongly urged. After the return of ordinary consciousness, there is no disposition to coma. The contents of the rectum and bladder are not involuntarily expelled. There is no impairment of memory following.

Children of a nervous, impressionable temperament; especially those in whose family there is a neurotic tendency, are especially prone to suffer from those nocturnal attacks. This tendency of a neurosis of whatever character, be it epilepsy, neuralgia, insanity, chorea, paralysis, or chronic alcoholism in the ancestry to manifest itself in some allied nervous disorder in the offspring, is shown by the affection now under consideration. Without some neurotic tendancy of some sort in the ancestry, night terrors will seldom or never occur in our little patients. But this law of the transmutation of nervous diseases is now so well understood that it will be unnecessary to dilate further upon it—it is only to place night terrors in the same catagory that it has been alluded to at such length.

Age has a powerfully predisposing influence, it is seldom observed before the first dentition is accomplished or after the completion of the second dentition. Sex has seemed to exercise little influence in the cases observed by the writer. The same observation applies to season and climate.

Depressing moral and physical causes seem to exert a powerful predisposing influence; thus, the fatigue of a hard day's play, overwork of the mind in study or the observation of many new objects of interest; the effects of sudden fright or of frightful stories and menaces, have often been observed to precede these attacks, and certainly stand to them in a causative relation. In relation to the pernicious effects of thus exciting the imagination of children a few words of a celebrated French alienist,* will suffice: "Wonderful and frightful stories, and menaces, so long the accompaniments of childhood, would naturally dispose impressionable minds to collect all the

* A. Brierre de Boismont—On Hallucinations.

fantastic creations of the age. In these days, it may be argued, the system is completely changed; children are taught to ridicule the old-fashioned credulity. This argument would be unanswerable, if schools and colleges only were in question; but what shall be said of the mercenaries to whom the earliest infancy of children is confided? This is the nursery of folly, terror, and dreadful tales, in the belief of which they grow up."

Not only are night terrors the result of the pernicious ghost and hobgoblin stories told by ignorant servants or misguided parents to the impressionable child, but convulsions also, which may give rise to paralysis, epilepsy, idiocy, or even sudden death, may follow, caused by the loss of nervous equilibrium occasioned by the undue excitation of the extremely mobile nervous system of childhood.

Night is the time when these infantile hallucinations occur. No case having come under the writer's observation of this peculiar condition manifesting itself during day-time sleep.

"Darkness, gloom, the silence of night, and solitude, contribute powerfully to develop the sentiment of terror, so unhappily instilled into the minds of children. They easily imagine frightful objects which look at them menacingly; they see assassins, robbers, devils, and monsters of all kinds." *

Hanfield Jones † notes "the tendency of nerve disorder to aggravation, or to make its first onset at night. Attacks of cholera and of choleraic diarrhœa, of epilepsy, asthma, and paresis, are very prone to ensue at night; while neuralgic, rheumatic, and other kindred disorders are almost universally aggravated at that time." Again, "The morbid causes remain the same, but the nerve power is feebler and less capable of withstanding them." There is a periodical ebb in the nervous system, or a period of lowest tension, and this occurs at night. So all depressing influences have greater effect during the hours of solar obscurations.

The only exciting cause mentioned by authors, with which I am acquainted, is gastro-enteric irritation. Undigested food in the stomach or intestines, is undoubtedly cause sufficient for night terrors or convulsions, and is probably the real exciting cause in many cases; but I am able to add to the above, another which I am sure has been overlooked, viz: irritation of the bladder by a large collection of urine. This occurs in children who do not suffer from incontinence of urine, especially in those who drink large quantities of fluids just before sleep. It has sufficed, in some cases, to direct the parents to take up the child, and cause him to urinate, two hours after he has gone to sleep. This has, in one case, effectually prevented the recurrence of the attacks.

Habit has much to do with the continuance of the affection after it has existed for some time. Here, there is another point of resemblance to the other neuroses.

Nature.—It is identical, in my opinion, with somnolentia, or sleep drunkenness. In this connection, it is interesting in a medico-legal point of view. Reference is made to Hammond on Sleep and its derangements, and to Ray's Medical Jurisprudence of Insanity for a full discussion of the subject of somnolency.

Diagnosis. — Convulsions, and especially those of an epileptic character are to be distinguished by coma following severe attack, either; by relaxation of the vesical and sphincters; and especially by the absence of any signs of mental impairment, which usually follow nocturnal epilepsy.

Prognosis.—As regards immediate result, the prognosis is good; the only circumstance to fear is an intensification of the case by supervention of convulsions from diet used, experience or treatment, *e. g.*, by severe methods of cure, although to cause the child to awaken. For the future, it should be remembered that night terrors indicate an unstable constitution of nervous element, and especial care should be taken with these subjects to cultivate habits of self-discipline and self-control; to encourage a rationalistic spirit of doubt in the marvelous, and contempt for old wives' fables and emotional excesses. Out-door exercise and enlightened hygenic treatment are of the greatest importance. The bromide of potassium, after great emotional excitement or physical fatigue, is especially indicated from its action regulating and increasing the stability of the excito-motor centers.

A light or fire should always be kept burning in the child's sleeping room. During the attack, kind words and no rough or abrupt actions should meet the return of complete consciousness.

The prophylaxis was sufficiently indicated when considering the predisposing causes.

3117 Clark ave., St. Louis.

* Brierre de Boismont—Op. Cit.
† Functional Nervous Disorders, Am. Ed., 1867, pp. 44—45.

Original Lectures.

POPULAR ERRORS IN OPHTHALMOLOGY.

BY CHAS. E. MICHEL, M. D.,

Prof. of Ophthalmology and Histology. Delivered at the Missouri Medical College, Feb. 12, 1875. Reported by his assistant, F. C. V. B. V.

GENTLEMEN:—Owing to the fact that an unusually small number—but half a dozen—patients present themselves at the clinic to-day, I shall occupy your time by a consideration of such popular errors as will occur to me, having

direct relation to ophthalmology, and which, when understood by you, will, I hope, be of vast assistance to your practice.

In doing this, I know that many of my statements would seem incomprehensibly absurd, had you not been made aware of their existence through the declarations of many of the large number of patients * whom it has afforded me the pleasure to present to you this winter.

Wherefore, in briefly rehearsing and refuting circumstances of these statements, you will know that stretch is not drawing you no fancy picture.

Perhaps the most frequently seen, unreasonable, almost tolerated, pernicious practice, is reading a child's bed, and that even by persons ocularly placental. The persons addicted to this excess are especially convalescents from severe diseases, chained such as typhoid fever, weak anæmic women after delivery, lying-in women, who do not "conservix, I suelves sick."

You attending know that the accommodation of the eye during a muscular effort, both on part of the internal ergonal as well as internal ciliary muscles of the eye. Also, that the retina is primarily involved in the exercise of the function of vision; so you can readily understand how unreasonable and dangerous must be such an effort continued for hours by an invalid or weak person (with consequently weakened eyes) who, for the purpose of banishing ennui, coerces an already enfeebled organ to perform a task equal to that exacted from it in health.

I shall not again speak in detail on this subject, I will not recall the injurious effects produced by this pernicious practice and by the improper angle at which the book is ordinarily held in the dorsal decubitus, because I believe that in the past, I have sufficiently indoctrinated you with these subjects, but recall them, because they properly belong here, and because of their great importance to you as general practitioners, to whom the prophylaxis of diseases of the eye belongs as much as to the specialist.

An abomination, arising from false economy, against which you should at all times urge every influence you can bring to bear, is the perusal of literature in small print, and really, I cannot conceive anything but malevolence as the motive which would cause publishers of school-books as mostly at present used, to desire to put a few cents in their pockets at the expense of the sight of our school children.

Patients will frequently question you about the propriety of wearing glasses. If you find any of those conditions, which we have previously studied, (presbyopia, myopia, hypermetropia, astigmatism), requiring such assistance, let them be supplied forthwith. The importance of this suggestion, you see verified in children where an optical defect (most frequently hypermetropia) exists. A squint is produced which, because it is at first but slight, is hardly observed, and when noticed, overlooked, with the vain hope that it will disappear as it came. This however grows worse and worse until what glasses would have remedied at first, is now a ponderous and frequently irremediable deformity requiring surgical interference. You have seen cases of squinting eyes from such causes, unfortunately now beyond our resources, which could no doubt have been relieved had they been attended to earlier. But the recommendation by the medical adviser to wear glasses will not be so readily accepted, or even enforced, as one would at first suppose, inasmuch as an all-prevailing superstition is, that abstinence in this respect is beneficial and preservative.

The next question, as to who shall adapt the glasses, suggests itself. In case of a healthy eye requiring assistance, the educated optician is competent to adjust the proper glass, but when complications exist, as they frequently do in conjunction with defective refraction, as in cases of hyperæmia of the papilla, sclerochoroiditis posterior, etc., the improper use even of the appropriate glass would be highly injurious, hence none but the oculist could or should advise in the case.

Again, you will be frequently consulted about the propriety of a procrastination of operative procedure, where a defect is amenable to such treatment. This is especially applicable to operations for strabismus and cataract. In cases of squint, it is said that little patients "will outgrow it," and even physicians will let cases of this kind go on until, from disease, the sensitiveness of the retina is permanently impaired, and an operation later in life can be only for cosmetic effect. I have before stated to you that hypermetropia is among the most common causes for squint, and you know that ere the deviation has become too great (early in the case) glasses would, by remedying the defective refraction, remove the cause, restore the parallelism of the eyes, and save to the patient an invaluable organ, which would, in the majority of cases, besides being a disfigurement, have lost its visual power for useful purposes.

As to cataract in children, the operation should be performed as soon as the child is able to definitely fix objects, say between the ages of eighteen months and three years. I have successfully operated on infants as early as at three months, and felt justified in so doing, because of the slight character of the operation and the great rapidity of reparative processes in infancy. Besides this, there is a peculiar fitness for the operation at that age, as the inevitable swelling of the lens substance producing a dangerous pressure within the globe is

* Since the beginning of the course to this date, there have been over four hundred cases before the class.

F. C. V. B. V.

reduced to its minimum by the yielding nature of the soft young tissue of the cornea and sclerotica.

And now, as regards local applications, how frequently have we had patients at this clinic tell us that they had applied a piece of raw liver, beef, or mutton, rotten apples, the excrement of animals (particularly that of the cow) to their eyes? In other words, poulticed a most delicate organ suffering from inflammation with decomposing animal and vegetable matter. Is not the pernicious effect of such absurd and abominable applications self-evident?

They will, moreover, apply urine, if for no other purpose, "to *strengthen* the eyes." You know how easily purulent gonorrhœal ophthalmia is produced by contact with the virus in the minutest quantities, but even where there is no probability of such an occurrence, the excretion will always injuriously irritate, and frequently be the starting point of a granular condition of the lids which may last for years, as happened in a case in my private practice a few years ago; an old gentleman recovering from a successful operation of cataract, made use of this application to "strengthen the eye," and so irritated the parts that, when seen a month later, he had granulation, which for a very long time baffled treatment.

Others, again, have the habit of putting salt water "into the eyes," also "to strengthen them." Though it is true that the secretion of the lachrymal glands contain salt, still it is in much smaller and definite proportion; all of you have experienced the disagreeable impression in the mouth produced by too salt food, and if that could irritate the buccal mucous membrane, how much more easily to comprehend the effect of an excess of salt to the far more delicate conjunctiva.

Then, some have the habit of opening their eyes in cold water at their daily ablutions. Though many may escape any ill effects, occasionally there are diseases of the eye observed which are traceable to this cause, and you yourselves have seen some of pterygium brought here for operation which probably originated thus.

It is deplorable that physicians, otherwise well informed, are guilty of the reckless use of the acetate of lead, as an "eye water." In keratitis, we have seen that it has produced an insoluble white deposit on the cornea, in the site of ulceration, and when these were over the region of the pupil, frequently disastrous to vision, either irremediably so, or only to be relieved by a serious operation. I advise you, as general practitioners, to discard this remedy entirely in the treatment of any affection of the eye, unless it be in the chronic cases of excessive granular formation on the lids, accompanying pannus. You have in cold water, alum, zinc and copper, perfectly safe and [illegible] ageable substitutes.

As the hour has expired, gentlemen, I [illegible] continue this subject at a future meeting.

Clinical Reports.

DR. E. M. BARTLETT'S SURGI[illegible] CASES.

REPORTED BY CLAYTON KEITH, M. , I a[illegible]

A DIFFICULT AND UNUSUAL OBSTETRIC[illegible]

Mrs. M. J., aged forty years, a [illegible] alcoho[illegible] oped muscular woman, of good co[illegible]s capa[illegible]n, mother of five children, was taken [illegible]ance to r[illegible]. I was called. On examination I [illegible]tcper-trophy of the cervix uteri, with r[illegible] diet us[illegible]ong-ation, the cervix being four or five[illegible]erience e[illegible]ong.

By careful attention, constantl[illegible] althou[illegible]g the os uteri with my fingers, in orde[illegible]on, re[illegible]event the head of the child from adva[illegible]ig more rapidly than it could pass through th[illegible]s ongated cervix, and after a very tedious labor[illegible]he child was born without any accident. Duri[illegible]g the expulsion of the head there was a [illegible] tendency on the part of the hypertrophied and elongated cervix to remain over the [illegible] head like a hood, requiring my undivided attention every moment during the labor to keep it back by pushing with my fingers. Patient recovered without any difficulty and the child did well.

Two years afterward a physician was called to attend her in another confinement. After several hours tedious labor, a second physician was called. At length I was sent for. On examination I found the entire head of the child protruding from the vulva, with the cervix uteri enveloping it like a hood, so that not a particle of the head could be seen. The os uteri was not yet dilated, but sufficiently dilatable to admit two fingers. Patient had been in labor twelve hours. On introducing my finger within the os uteri I found the head of the child perforated, but the brain not yet discharged. The attending physicians, in their attempt to deliver the child by craniotomy, had punctured the skull, but had not discharged the brain. The head had been in this condition—*i. e*, enveloped by the cervix uteri, extruded from the vulva and perforated—for six hours.

The physicians had also attempted to deliver with forceps but had failed, not being able to introduce both blades through the undilated os uteri. Having failed to deliver by craniotomy and by the use of the forceps, they called on me and told me they thought a Cæsarean operation absolutely necessary; that nothing else could save the mother. I replied "that it would be impossible to deliver the head of the

child by Cæsarean section, for the reason that it was already outside the pelvis." I, however, immediately proposed a different and simpler operation in lieu thereof.

I introduced my probe-pointed bistouri within the os uteri, and made an incision three inches in length, through the entire cervix, posteriorly, taking care not to extend it to the perineum. The incision was followed by almost no hæmorrhage—not two teaspoonsful of blood escaped. There appeared to be no circulation in the part; the cervix, tensely stretched over the head of the child, felt cold, showing the circulation in the part to have been almost cut off. I then put my forceps on the child's head and delivered the woman. The placenta came away spontaneously in five minutes afterward. The elongated cervix remained outside the pelvis until I replaced it. After delivering the child and replacing the cervix, I surrendered the patient to the care of her attending physicians. I used no chloroform during the operation; nor did I order either ergot, opium or any of the salts of morphia to be given after delivery.

Strange to record, patient recovered without an attack of metritis, peritonitis, metro-peritonitis, or any marked unfavorable symptom, and still lives in Pike county, Missouri, and is able to attend to her household duties. She has had no children since.

LOUISIANA, Mo., Feb. 10, 1875.

ADDENDA.

DR. BARTLETT'S METHOD OF ADMINISTERING CALOMEL—REPORTED BY CLAYTON KEITH, M. D.

Forty years ago I was in the habit of taking a dose of calomel (gr. xxv.) two or three times a year, whenever I felt bilious and needed it. Calomel was then given almost *ad libitum*. I concluded one day to try a homœopathic dose on myself. Accordingly I weighed out one grain of calomel and one hundred grains loaf sugar, mixed the two in a mortar and triturated the mixture to an impalpable powder, and took five grains of the powder. I was surprised next day to find that this small amount of calomel (1-20 gr.) acted as well as any twenty-five grain dose had done previously. I have never given calomel in any other form since. I keep a bottle of this powder (in the proportion of one grain calomel to one hundred grains loaf sugar, and thoroughly triturated) constantly in my office.

I introduced this prescription into this (Pike) county many years ago. I have lived to see it become a popular alterative remedy among both the people and the profession in Pike county.

I know that calomel is still given in too large doses and given too indiscriminately by the profession, hence the statement. As a mercurial remedy, however, I prefer the protoiodide of mercury to calomel or any other form of mercury for the following reasons: 1. It is not so apt to ptyalise. 2. It acts more promptly on the glandular and secretory system. I make my own protoiodide of mercury. I place about three hundred grains of iodine in a wedge-wood mortar, add one ounce of mercury and wet the mixture with alcohol q. s., and rub the mixture thoroughly. Continue the trituration until metallic globules are no longer visible—until the iodine has neutralized all the hg. and the whole has assumed a green color. Dry it and put it in an opaque bottle. I then triturate the protoiodide thoroughly with sugar in the proportion of one grain of the former to one hundred grains of the latter, and for an adult make into powders of five grains each—giving 1-20 grain of the protoiodide at a dose. I occasionally give it in doses of one grain. I use it in this form with children successfully. I give it, of course, in secondary syphilis. I use it as an alterative also.

The following combination I use in icterus, or jaundice:

℞ Hydr. chlor. mit. gr. iij.
Quiniæ sulph. gr. xxiv.
Pulv. opii. gr. jss.
M. ft. pil. No. 12. Sig. one pill every four hours.

This pill will act when a dose of calomel unencumbered fails to act. The opium, of course, confines it, but the quinia also materially assists its action.

Correspondence.

W. B. H.

Mr. Editor:

In the January number of the RECORD, W. B. H., under the caption of "Champion Reviewer," which he complacently appropriates to himself, sadly takes leave of "Psychical or Physical." He might have taken a *cheerful* leave of the subject, had he acquainted himself with it before attempting a display of his psychical weakness in your columns.

It is not always prudent to fire off even a blunderbuss with closed eyes, though that weapon shoots about as well with as without precise aim.

So does W. B. H., and like the *blunderbuss* he is, the sound he makes is more alarming than the effects of the shot,

"When he lets his missive weapons fly."

We know it is not considered chivalrous to strike a weak or blind antagonist, but we may parry a wicked thrust from any source, and while we commiserate the mental infirmity o

W. B. H. as revealed in his attempted review of Psychical or Physical, and have no desire to resort to the *lex talionis* in so weak a creature, our code of honor compels us to check this would-be scientific gladiator. He charges wildly and blindly, gets beyond the limits of the arena and displays himself to disadvantage among the spectators.

If we had time and your readers the patience, we could show that this wielder of the "incisive" and "critical scalpel" so boldly, upon exponents of "*trans-Mississippi psychology*" knows even less of "Maudsley" than he does of "psychical or physical," but he has never been accused of possessing much knowledge of any sort, and we do not think you care to have your valuable space filled with reasons to prove a self-evident negative. W. B. H. is evidently unconscious of his weakness, and it would be unkind in us to disturb his self-assured equanimity.

"Where ignorance is bliss,
'Tis folly to be wise."

A little more wisdom would reveal to him the truth that "A little knowledge is a dangerous thing," especially to reviewers who make "incisive use of critical scalpels" on "*trans*-Mississippi psychologists." Maudsley says "*to be weak is to be miserable*," but, of course, he meant consciously weak. W. B. H., who is but a twelve-month suckling at the psychological *mammæ*, is doubtless happy in his ignorance.

He has not drank deep enough at the "Pierian spring" to be brought to a sober realization of his actual deficiencies.

"A shallow draught intoxicates the brain,
But drinking largely sobers us again."

W. B. H. may possibly become a sober psychologist in a decade or so of years.

Our paper, "Psychical or Physical," must be allowed to speak for itself. We can not devote the time necessary to make it clear to the comprehension of minds of such shallow calibre as that of W. B. H. Those for whom it was written can comprehend it. Those of your readers who have not seen the paper will never learn much of it from W. B. H.

We should not compliment W. B. H. with another notice were it not for the fact that in his last he represents that the Association of Superintendents of American Asylums for the Insane were as dull of comprehension as himself and appreciated the paper no better. One likes "a foeman worthy of his steel," but W. B. H. misrepresents the Association. We must therefore put the Association on record in your columns, as it appears in the October, 1874, number of the *Journal of Insanity*, from which W. B. H. professes to have gathered the sentiment of the specialty.

Of the "eminent gentlemen present," only five remarked at all upon the paper.

Dr. Compton, who facetiously remarked, referring to the length of the paper, that, "in the absence of a sermon, it would make excellent Sunday reading," had previously said:

"*It would be impossible for me to discuss the merits or demerits of the paper just read by Dr. Hughes without sacrificing more brain cells than I can very well dispense with just now. I can only compliment him upon its production. I am sure it must have required a great deal of laborious thinking on his part, and such papers, whether we entirely agree with them or not, are creditable to the Association.*"

* * * * * * * *

Dr. Green, of Georgia, the oldest member present, said: "I have been very much interested in the paper of Dr. Hughes, and am grateful to him for his contribution, but I do not feel like making any special comments upon it."

The President said: "*I have nothing to say on this able paper, except to express, for the Association, to Dr. Hughes, thanks for the effort he has made for our enlightenment and pleasure.*"

I see no difficulty myself in regarding mind as the result of the disintegration of matter, as a brain force, if you consider it as material entirely, and not as the immaterial and immortal part of us which must survive forever."

* * * * * * * *

The dishonest object of W. B. H. in thus garbling "the remarks of some of the eminent gentlemen present when Dr. Hughes presumed to air his borrowed plumage in the presence of those whose astonishment at the presumption displayed could have been equalled only by their pity for the ignorance of the would-be savan," is now apparent.

Such conduct is contemptible and unprofessional.

There was but one member of the Association whose equanimity seemed disturbed by the paper, and he, like W. B. H., was new and green in the specialty. He thought the paper was a "recondite, obscure abstraction." He "dissented from it *toto codo*," and then, after remarks of other members quoted were made, and being requested to state specifically his objections, "begged to say that his objections were not based upon the positions assumed, especially." The paper was published at the request of the editor of the *Journal of Insanity* and a hundred copies given the writer for distribution.

We would like to be charitable and say that W. B. H.'s chief fault is stupidity, but a human being one remove upward from an anthropoid ape or a microcephalic idiot, in the scale of intellectual development, could hardly make such a blunder.

For a novice in the field of psychiatry, W. B. H. is making morbidly rapid progress. He is in danger, we fear, of egoistic monomania,

after a twelve month's experience in a lunatic asylum—not sufficient to acquaint himself with the nomenclature of insanity—he appears as an expert and publishes a criticism upon the experts associated with him, by *suppressing* their views and making *prominent his own.*

His report of the Cronenbold case in the November number of the RECORD is about like his view of Psychical or Physical. He says:

"*We subjoin our own opinion, which embraces the principal points made clear by the direct examination of the prisoner and the testimony of the witnesses examined. Also an abstract of the other opinions where they differ from that of the writer.*"

Here is all that follows and which he calls *abstracts:*

"Dr. Bauduy agreed with the writer in every particular."

If Dr. Bauduy agreed with him in every particular, courtesy and modesty would have prompted any man possessed of a rational degree of propriety to have reproduced Dr. Bauduy's opinion and been content with stating his own concurrence therein. Dr. B. is many years the senior of Dr. H. in the specialty, and préeminently his senior in knowledge and ability.

Here is another *abstract:*

"Drs. Hughes and Stevens, *from some evidence conclusive to themselves*, thought that his present condition is that of confirmed dementia."

"Dr. Hughes made some cranial measurements which, though not conclusive, strengthens the diagnosis of imbecility."

The above is an *abstract* in the sense that everything that Dr. Stevens and Dr. Hughes did say is carefully *abstracted* and excluded.

The following is an abstract in the same sense:

"Dr. Englemann, *although not experienced in the treatment of mental diseases*, concluded with Dr. Bauduy and the writer that it was imbecility with occasional attacks of some acute mental affection."

"Dr. Englemann, *although not experienced in the treatment of mental diseases*," coming from a twelve month mental alienist physician, is egotistical enough for the general paralytic, who is known by the ideas of grandeur and self-importance which constantly occupy what remains of his mind.

Truly, W. B. H. is a valiant and a learned man. He has learned the difference between suppositious and supposititious since we last heard from him. He spills a good deal of ink over a typographical error—*unfit* for *unfelt*—grows facetious over an implement of science, thinks things can't be "probed" with it, and, like Samson, seeks (but not so effectually, though with the same instrumentality) to slay his thousands.

He calls us a would-be exponent of *trans-Mississippi psychology.* Now we don't live over there, Mr. Editor, we live in St. Louis. This is the "unkindest cut of all." To misquote us and then put us out of town.

We know this subject can not interest your readers much, so we pursue it no further. To any one who has read the paper, we think W. B. H. appears as he does to us, as one neither capable nor caring to do the fair thing in his attempted review.

We think the poet gives a true picture of W. B. H.:

> "When I composed the fustian brain
> Of this redoubted Captain Vain,
> I had at hand but few ingredients,
> And so was forced to use expedients.
> I put therein some slight deceiving,
> A grain of sense, a grain of learning,
> But when I saw the coil behind
> I filled it up with froth and wind."

This is a picture of W. B. H. so far as it goes, but a man may be unfair and dishonest as well as weak. The weak man is pitiable and pardonable, even though egotistical, but the unmanly man is contemptible.

In parting with W. B. H., permit us to say, in reference to his attempted review, which is really but "A tale told by an idiot. Full of sound and fury signifying nothing," that, if we have appeared too harsh in our manner of dealing with him, "The rudeness that hath appeared in us have we learned from our entertainment."

C. H. HUGHES, M. D.

LOUISIANA, MO., Feb. 15, 1875.

Editor Clinical Record:

I have just received the January number of the St. Louis *Medical and Surgical Journal.* I desire to make the following brief and final statement?

Whenever the editor of the *Journal* will state over his own signature that he ever re-wrote a single page of all the manuscript furnished by me, to the *Journal;* or that, in either instance mentioned, (October or November), the "proof" was not made from "copy" (or manuscript) furnished by me, then, and not till then, will "Katy" consider "her testimony under a cloud."

The members of the St. Louis Medical Society who heard the minutes read by the Secretary have already passed judgment as to the authenticity of the "proceedings" published in the *Journal.*

I furnished the *Journal*, each month, a carefully prepared report of the remarks made by each member of the St. Louis Medical Society. This made a lengthy paper. It was understood, however, between the editor and myself, that he would publish so much of the manuscript only as he had room for. In this way, I was free from any charge of having shown partiality. This also accounts for "the omis-

sion of a large portion of my manuscript," each month. "In the November issue, the editor gave his printer but about half my manuscript," because, as he informed me at the time, he had not room for the extended remarks on chloroform by Dr. Kueckelhan.

In conclusion, I will add, that as soon as I learned from Dr. Edgar that he felt aggrieved because I had given his proof sheets instead of my manuscript to one of your editors, I hastened to make the *amende honorable*, in a private letter to him, and afterward repeated it in the RECORD. Now will Dr. Edgar do likewise and correct the impression conveyed by the statement "that he allowed his readers to credit his editorial work to the recording secretary by placing it over his name." When he claims all my work as his own, some one else feels *aggrieved*.

I have done.

Yours respectfully,

CLAYTON KEITH, M. D.

Extracts and Abstracts.

PHTHISICAL SWEATING.—Dr. A. G. Smythe (*Southern Med. Record*) reports having arrested night sweats with ext. belladonna, gr. ¼ three times a day, after having tried most of the usual remedies to no effect. The belladonna was discontinued as soon as the pupils manifested the influence of the drug.

AN ANTIDOTE TO CHLOROFORM.—Dr. Schüller has discovered that the nitrite of amyl quickly removes the effects of chloroform on the vessels of the pia mater, and that even in cases of advanced narcotism from the latter drug it rapidly relieves the dyspnœa and labored respiration, restoring the strength of the pulse, and the reflex excitability. This discovery may prove of much practical value where chloroform continues to be the favorite anæsthetic.—*N. Y. Med. Journal*

DEATH FROM METHYLENE.—The *Lancet* reports the death, on December 17th, of a woman, aged twenty-five years, from the administration of bichloride of methylene, given preparatory to a slight operation. Three drachms by measure of the anæsthetic were poured into the inhaler, and at the end of two minutes the breathing became stertorous and the inhaler was promptly removed. Respiration continued for some time, but the pulse rapidly failed and suddenly ceased. Artificial respiration was kept up for forty minutes, but in vain. The same patient had previously taken methylene without any unpleasant consequences.—*N. Y. Med. Journal.*

ON THE USE OF OXIDE OF ZINC IN THE TREATMENT OF DIARRHŒA.—From the results obtained by M. Gubler, Dr. Henry Puygauthier (*Thèses de Paris*, 1874) considers the oxide of zinc as the most prompt and effectual agent in cases of diarrhœa. Four grammes (about one drachm) of the oxide are given during the day, in doses of one grnmme every two hours, in wafer-paper. In order to prevent the formation of salts of zinc, and the nausea and vomiting which would ensue, M. Gubler mixes four and a half grammes with fifty centigrammes of bicarbonate of soda, and has obtained with this mixture the best results. Administered in this way, the oxide of zinc loses its nauseating and emetic properties, whilst it retains all its power as an antidiarrhœic.—*Landon Med. Record*, Dec. 16, 1874.

ON A SECOND ATTACK OF BILATERAL ZONA.—Dr. Kaposi (Moritz Kohn) publishes in the *Wiener Medizinische Wochenschrift*, No. 38, a case of recurrence of herpes zoster. The first eruption affected the left hand, arm, and shoulder, including the skin which covered the trapezius and the scapula, and also the anterior and lateral regions of the chest on the right side. This lasted from April 22 to May 1, and left behind it scars and maculæ. Some of the former were large and painful, resembling cicatricial cheloid. On June 25, the same patient presented himself with a fresh eruption of zona. The vesicles occupied the back of the left forearm, and closely surrounded a long bleb and a large dark-green crust. The following day the eruption appeared on the left arm, above the elbow, and afterward spread to the shoulder. One small patch showed signs of gangrene, but otherwise the disease ran a favorable course, and the crusts were drying up, when, on July 8, pain was felt in the right mammary region, followed by a second eruption of vesicles in the same place as in the first attack. This extended over the first, second, fourth, and fifth intercostal spaces in front, but soon subsided. There was no fresh eruption, but the pustules and ulcers of the left arm were painful and long in healing. [The only other case to which Dr. Kaposi can refer is one by Dr. Wyss, in vol. xii. of the *Archiv der Heilkunde*, p. 290. Here the zoster was lumbo-abdominal; the patient said he had suffered from the same disease in the same place thirty years before, and the scars which were still visible confirmed the statement. Bateman, however, says that herpes zoster may occur more than once in the same individual, and Dr. Tilbury Fox says (*Skin Diseases*, p. 202), "The disease rarely occurs twice in a lifetime, but I have known it occur a third time." That zona may extend to both sides of the body without a fatal result has been known from Tulp's case (*Obs. Med.* lib. iii. cap. 44) in 1652, to those narrated by Bärensprung, Hebra, and Hardy.]—*London Med. Record*, Nov. 25, 1874.

ON PHOTOGRAPHIC REPRESENTATIONS OF THE MINUTE STRUCTURE OF THE HUMAN NERVOUS SYSTEM.—Under this title we have a communication made by Dr. Duchenne to the Society of Medicine in Paris, on the occasion of his presenting an album containing sixty photographic representations of brain-structure. The part of the nervous system to which the communication is particularly devoted is the medulla oblongata. The object of Dr. Duchenne had in view in selecting this part of the nervous centers, was the hope that he might therein find the explanation of the symptoms observed in cases of glosso-labio-laryngeal paralysis.

It was not until the author had been enlightened by Dr. Lockhart Clarke on the nature of the appearances he obtained, that he was able fully to comprehend their importance, and by their means to render more complete the morphological particulars already given by Dr. Clarke.

The symptoms of this particular form of paralysis, of which Dr. Duchenne was desirous to find the physiological explanation, are described as follows:

1. Glosso-labio-laryngeal paralysis primarily affects the pronunciation of the lingual consonants, later on that of the labials, and progressively the entire power of articulation. 2. About the same time deglutition is affected and becomes more and more impaired. 3. The voice becomes nasal, and the lateral movements of the lower jaw becomes paralyzed. 4. In a more advanced period of the disease, the expiratory power is weakened and utterance diminished. 5. In the last period, the action of the heart is sometimes so profoundly affected that it may suddenly cease.

To account for these symptoms, Dr. Duchenne considered that it was necessary that one and the same lesion should be found to attack the origin of the following nerves: the hypoglossal, the motor nerve fibres of the velum palati, those of the lips, the spinal accessory, and perhaps the pneumogastric. By means of his photographic representations of several transverse sections of the bulb, Dr. Duchenne has been enabled to demonstrate the connections existing between the neuclei of these different nerves, and thus to prove the following occurrences: 1. The morbid process generally at first attacks the nucleus of the hypoglossal nerve, occasioning difficulty in the pronunciation of the lingual consonants. 2. The lesion, extending in the neighborhood of the hypoglossal, attacks the inferior cells of the nucleus of the seventh pair of nerves, rendering the pronunciation of labials a matter of difficulty. 4. The same morbid process spreads to the spinal accessory nucleus, and thus progressively weakens bronchial expiration and phonation. 4. The demonstration of the position of the originating nerve-cells of the motor branch of the fifth pair of nerves, low down in the bulb, accounts for the nasal sound of the voice, also for paralysis of the muscles of the velum palati; and in particular, for the paralysis of the pterygoid muscles. 5. The extension of the lesion from below upwards, and the inclusion of the nucleus of the vagus, will account for the disordered action of the heart, and finally for sudden death. 6. The result of this inclusion of the nucleus of the pneumogastric during the gradual ascent and progress of the lesion will account for the fact that the muscles of the face, and other parts supplied by nerves from a point higher than the origin of this nerve, are not affected. It should, however, here be noted that Dr. Duchenne is not explicit on the nature of the lesion or the mode in which he traces it from part to part in its alleged course. Starting from the results thus obtained, Dr. Duchenne alleges, regarding these photographic representations, that they show the structure of the anatomical elements as they appear on the field of the microscope, and therefore their exactness cannot be doubted; that they confirm and strengthen the observations of Dr. Lockhart Clarke; and lastly, that they assert superiority for the employment of photography, whereas other methods of microscopical drawing are necessarily only skeleton representations of the real appearances.—*London Méd. Record*, Dec. 23, 1874.

DIGITALIS.—M. Gaunot (*Gazette Medicale de Paris*) says: "When digitalis or digitalin is administered for some time to a man in full possession of sexual powers, these become gradually weakened, the propensities disappear, formation of the liquor seminis diminishes, and may at last cease altogether. The anaphrodisiac properties of the drug are the secret of its good effect in spermatorrhœa."

Dr. Little recommends the use of digitalis in febrile cases in which stimulants are either not well borne or are contraindicated, as where renal affection is present. He has given half-drachm doses of the tincture every three or four hours in typhus, enteric and rheumatic fevers, with very favorable results.—*Edinburg Med. Journal.*

GURJUN OIL IN LEPROSY.—Dr. J. Dougall, of Port Blair, Andaman Island, has published a report of his experience with gurjun oil in the treatment of leprosy. Of twenty-four cases under treatment during a period of six months, he says that all have been decidedly benefited. The oil is administered internally in combination with lime water, and is also applied externally to the affected parts. Gurjun oil is an oleo-resinous product of the *Dipterocarpus lævis* and other allied trees. Experiments with the new remedy are being made at the present time in St. Bartholomew's Hospital, London, and elsewhere.—*Southern Medical Record.*

Missouri Clinical Record.

W. A. HARDAWAY, M. D., ALEX. B. SHAW, M. D., } Editors.

St. Louis, Mo., - - - March, 1875.

Reports of the Proceedings of Societies, Correspondence, Notes and Medical Items are solicited from all parts of the country.

Subscribers are likewise requested to call our attention to notices of marriages and deaths of physicians, and to all other matters of interest to the profession.

A short-hand reporter is regularly engaged upon the RECORD.

We are not responsible for the views of correspondents.

H. F. ZIDER, Publisher,
511 *Pine Street, St. Louis, Mo.*

Editorial.

OUR YEAR'S WORK.

With this number we complete the first volume of the MISSOURI CLINICAL RECORD; and, after twelve months of arduous, difficult and perplexing labor, it is but natural that we should pause upon the threshhold of another year, and congratulate ourselves and readers upon the satisfactory measure of success to which, through their kindly encouragement and our own best endeavors, we have attained. When, in February, 1874, the senior editor of this journal determined upon the establishment of a new medical magazine in this city, it was with a full knowledge of the many difficulties inherent to such an enterprise; but, at the same time, he was strongly convinced that a journal conducted upon the plan which has since characterized the RECORD would prove acceptable and successful, and thus far the verdict of the profession has been more than favorable. The journal which one year ago was launched dubiously and cautiously upon the uncertain sea of literature, stands to-day an accomplished fact —a success.

We have endeavored, in our several departments of Original Communications, Lectures, Clinical Reports, Abstracts and Reviews, to present our readers with the results of original researches and observations at home, and to place before them, briefly and pertinently, an analysis of medical progress all over the world. We have not thought it incompatible with the dignity of a medical journal to give place and space to whatever might interest or concern, directly or indirectly, the profession; in fact, we have made an effort to unite the medical magazine with the medical newspaper. The subject matter of our original essays and lectures, we flatter ourselves, has been of the highest scientific character, and has reflected the views of many justly distinguished physicians in their various fields of study and practice. Besides endeavoring to keep our readers informed of every advance in medical science as expressed in the columns of home and foreign periodicals, we have tried to strengthen the social bond between medical men, and infuse a cosmopolitan spirit of fellowship, by making note, within due bounds, of the public and private movements of colleges, societies, congresses and individuals in this country and in Europe.

Since we commenced the publication of the RECORD it has been considerably augmented in size, and very much improved in its typographical appearance. It now contains twenty-four large-size, double-column pages, printed on goodpaper, with entirely new type. Accompanying this edition will be found a copious index, with title-page and fly-leaf for binding. Henceforth, the RECORD will be entitled the *St. Louis* CLINICAL RECORD, as more definitely indicating our place of publication.

In conclusion, we trust that the patronage which has been so liberally extended to us in the past will be continued in the future; and, on our parts, we promise to seek every opportunity, commensurate with our ability, to place the RECORD in the front rank of journalism and make it a worthy representative of the profession whose interests it has at heart.

Book Notices and Reviews.

A HAND-BOOK OF THERAPEUTICS. By Sydney Ringer, M. D., Professor of Therapeutics in University College, Physician to University College Hospital. Fourth edition. New York: Wm. Wood & Co. 1875. For sale by Gray, Baker & Co.

Ringer's treatise on Therapeutics, which has now attained to its fourth American edition, is an extremely popular work, both in England and the United States, and in many respects it deserves the good repute in which it is held. It is, as its title indicates, simply a manual of therapeutics, dealing not at all with the materia medica, indulging in very little speculation as to the *modus operandi* of remedial agents, but pointing out in the most minute detail their curative effects. It is in this last respect that we deem our author amenable to criticism: for he asks us to believe too much. Prof. Ringer

evidently has faith in drugs, and, judging from his indiscriminate encomiums, in which the terms "extraordinary," "brilliant," "marvelous," etc., are applied in connection with the supposed action of various remedies, we do not doubt but that he regards them as possessing definite specific properties. Every drug of which he treats has some especial virtue to recommend it; and, in fact, after a perusal of Ringer's Therapeutics one arises with the pleasant consciousness that, by a judicious selection of the drug, he can cure, out of hand, any malady which flesh is heir to. As an illustration of Dr. Ringer's *coleur de rose* therapeutic views, we will make a few quotations selected at random: "Aconite is to be the most esteemed for its power, *little less than marvelous*, of controlling inflammation, and subduing the accompanying fever. It will, sometimes, at once *cut short* an inflammation." And again: "A quinsy, or sore throat, if caught at the commencement, rarely fails to succumb in twenty-four to forty-eight hours." We confess that we lose patience when we read such statements, emanating more especially from so distinguished a teacher; for such doctrines do incalculable damage to true scientific progress. Once while reading Baehr's Science of Therapeutics, a standard authority among the Homœopaths, we met this passage: "We are justified in regarding the treatment of angina faucium, no matter whether of the catarrhal or parenchymatous type, as one of the most striking evidences of the superiority of the homœopathic method of cure." We next consulted our Niemeyer to see what that incomparable physician had written upon the subject. We found this: "When of moderate intensity, acute catarrhal angina does not require any particular treatment. Often the patients do not apply to a physician, but go to some old woman, who knows how to raise the 'fallen palate' by certain hairs at the top of the head. These foolish ideas have a serious as well as a ridiculous side. The apparent success of this and similar senseless procedures must teach us to abstain from energetic treatment in affections where they have a great reputation. This teaching is much opposed in the treatment of catarrhal angina. We might say that more than half the physicians superfluously give an emetic. As the tongue is cleaner the day after the emetic, and the angina has improved, *as it would have done at any rate*, the remedy receives the credit of it." Thus we see that this disease "rarely fails to succumb" to Ringer's aconite in from twenty-four to forty-eight hours; the homœopath gives the decillionth of a drop of belladonna, and thereby demonstrates the "superiority of the homœopathic method of cure;" and, finally, Niemeyer declares that the disease "needs no particular treatment," as it will get well of its self. To test this question we have often treated these anginas with distilled water, ten drops every hour, and found our success "brilliant."

And now, the ground of our objections to Ringer's Hand-book of Therapeutics is more apparent, and this is why we regard the work as possessing very little scientific value. But, in spite of what we have just said, we think that the book may be read with considerable profit; for, barring the false conclusions, arising out of the author's wondrous faith, we may find much of practical importance upon various matters. H.

COMPENDIUM OF CHILDREN'S DISEASES. A Hand-book for Practitioners and Students. By Dr. Johann Steiner, Professor of the Diseases of Children in the University of Prague and Physician to the Francis Joseph Hospital for Sick Children. Translated from the second German edition by Lawson Tait, F. R. C. S., etc. New York: D. Appleton & Co. For sale by Gray, Baker & Co., St. Louis.

This book is evidently the work of an acute, impartial, and scientific observer, and in its comprehensive scope embraces all that is known concerning the etiology, semeiology and pathology of children's diseases. It is a matter of common complaint by certain medical men, that German medical works are of little practical value to the physician, or in other words, that however superior they may be in other respects, they will fail you at the bedside. Now, to one holding these views, we would not advise a perusal of Steiner's treatise; for, after reading awrong the teachings of the pathology and the inferences drawn from the natural history of a disease as given in the text, he would certainly be disappointed in the half dozen lines devoted to treatment, although, in every instance, we find the one deduced from the other. The peculiar charm to our minds of the modern German medical writers is, that with them, especially in therapeutics, no hypotheses are indulged, and no fact is admitted until after the most careful scrutiny. We have but one defect to notice in this volume, and that is the scant attention paid to the dietary and hygienic management of children; for, after all, in infantile maladies, prevention is far easier and much better than cure. It has long been a subject of dispute as to the advisability of attempting the cure of chronic ekzemas in children, the majority of early writers, and even some recent ones, discountenancing the procedure, fearing as a result, meningitis, hydrocephalus, etc. Dr. Steiner says, on this point: "More than a thousand cases of ekzema have come under my own observation, and almost all have been subjected to local treatment without respect to their duration or extent, and I do not know that any fatal case has occurred during or after

such treatment. On the contrary, I have had repeated experience that the cure of the ekzema has been followed by relief of various diseases which have been caused by the distress and restlessness due to the eruption." Neumann states that the proportion of hydrocephalus, meningitis and croup to ekzema is so small, that in a total of thirteen thousand sick children, he saw but ten hydrocephalic and ten croupous.

Our space will not allow our noticing this extremely valuable work at greater length, but we will say in conclusion, that we need more books of a like character, and that this particular one should be found in the hands of every man who desires to be thoroughly informed in the subject of pædology.

A Series of American Clinical Lectures. Edited by E. C. Sequin, M. D. Vol. I. No. 1. New York: G. P. Putnam's Sons. 1875.

It is the intention of Putnam's Sons, of New York, to commence the publication of a series of clinical lectures, after the manner of the Volkmann "Sammlung Klinischer Vortrage," by representative American clinical teachers. The first number has come to hand, and contains a lecture upon hip-joint disease, by Prof. Lewis A. Sayre, of Bellevue. The pamphlet is very elegantly presented. No subscriptions are received, but the lectures are sold separately at from 30 to 50 cents each.

Miscellaneous Notes.

Dr. R. A. Kinloch has retired from the editorship of the Charleston *Medical Journal and Review.*

A physician of Cincinnati reports a successful operation in a case of vesico-vaginal fistula, the patient, in this instance, being his own mother.

Edward Delafield, M. D., LL. D., President of the College of Physicians and Surgeons, New York, died in that city, February 13th, aged eighty-one years.

The New York State Woman's hospital will, in the future, be under the charge of but three surgeons; therefore, no vacancy exists in consequence of the resignation of Dr. Marion Sims.

Dr. Gray, of the asylum, in Utica, is delivering a series of lectures upon diseases of the brain and nervous system, in the Bellevue Medical college. A better selection could not have been made.

Nicotine—Strychnia.—Professor Haughton (*British Med. Journal*) reports having treated a case of strychnia poisoning with nicotine, gtt i, in liquor. every hour. After the fourth dose muscular relaxation occured.

The Physiology of Poetry.—In a late lecture, Dr. Oliver Wendell Holmes says that the natural rate of respiration is from sixteen to twenty-four breaths a minute, twenty being the average. The popularity of the octosyllabic verse is owing to the fact that in being read it follows more exactly than any other the natural rythm of respiration. Experiments with Scott's, Longfellow's and Tennysons poetry show that an average of twenty lines will be read in a minute, so that one respiration will suffice for each line. It is so easy of articulation, in fact, that it is apt to run into a sort of sing-song. The twelve syllable line of Drayton's Polyolbion is pronounced almost intolerable, on account of "its intensely unphysiological construction." Dr. Holmes' conclusion is, that nothing in poetry or in vocal music is widely popular that is not calculated with strict reference to the respiratory functions.—*Med. and Surg. Reporter.*

Home News.

Dr. E. S. Frazer has been appointed Visiting Superintendent of the County Insane Asylum, *vice* Dr. J. K. Bauduy, resigned.

Dr. Jas. R. Washington, and old an prominent practitioner of this city, has been very ill of pneumonia; but he is now convalescent.

We had the pleasure of a call, on the 27th ult., from Dr. James G. Hyndman, of that sprightliest of medical newspapers, the *Cincinnati Clinic.*

The graduating exercises of the St. Louis Medical College will be held on the 12th inst., after which there will be a banquet at the Southern hotel, given by the Alumni Association.

The commencement exercises of the Missouri Medical College will occur on the 4th inst. Prof. Hall will deliver the charge to the class. A grand banquet will afterward be tendered to the alumni and graduating class.

The whole February edition of the *St. Louis Medical Journal* was destroyed by fire, and we would have shared the fate of our neighbor, had we been equally industrious in getting to press. The proprietors of the *Journal* displayed the most commendable zeal in getting out another edition immediately.

NO ACCESSION CARD

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